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Recruit Training

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| 13. ABSTRACT (Maximum 200) Smoking is a modifiable behavior that is negatively related to women's health and physical readiness, and increases the burden on military health care systems. This behavior is of particular concern to the DoD because military women are more likely to smoke than their civilian counterparts and because women have greater difficulty quitting than do men. The present 2½-year study, funded by the Defense Women's Health Research Program (DWHRP), is testing innovative approaches to reduce smoking among Navy women by evaluating two different relapse-prevention interventions that support maintenance of the "quit status" organizationally mandated during basic training. Women smokers are assigned to either a control group or one of two intervention groups at entry into basic training. One intervention group is encouraged to access a telephone helpline for counseling to remain a nonsmoker; the other group receives a series of monthly mailings. During Year 1, data were collected on over 2,500 women recruits. Over 44% reported smoking in the month prior to basic training. Of these smokers, 37% perceived themselves to be non/former smokers at graduation from basic training. Assessments at 3-, 6-, and 12-months post-graduation will be used to evaluate the effectiveness of the interventions in maintaining the "cold turkey" smoking cessation induced during recruit training. | | | | |
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FOREWORD

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Terry Conway 10-15-96
PI - Signature Date

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Statement of Work

YEAR 1:

Goals:

Refine study procedures to be compatible with the Navy environment and operational needs; initiate data collection; implement smoking relapse-prevention/cessation-support interventions.

Tasks:

- A) Initiate contacts with Recruit Training Command (RTC), Great Lakes and refine study procedures for collecting tobacco use survey data at entry and graduation from basic training. [months 1-2]

Completed. Contacts were made with the Naval Training Command (NTC), RTC, and Branch Medical Clinics (under Naval Hospital, Great Lakes) to obtain approval to conduct the study and cooperation in data collection.

- B) Refine intervention materials and procedures. [months 1-2]

Completed. Copies of mailed intervention materials and phone protocol are included in Appendices E & F. Procedures for implementing interventions are described in section II.A.4.

- C) Develop tracking procedures for following and contacting recruits for one year after basic training. [months 2-3]

Completed. Procedures for tracking recruits are described in section II.A.4.

- D) Initiate recruit training entry data collection, which will continue for 12 consecutive months to control for seasonal variation. [month 4-Year 1 through month 3-Year 2]

Completed. Entry data collection was initiated during March 1996.

- E) Initiate recruit training graduation data collection, which will continue for 12 consecutive months. [month 6-Year 1 through month 5-Year 2]

Completed. Graduation data collection was initiated during May 1996.

- F) Introduce telephone helpline to selected divisions at RTC; continue for 12 consecutive months. [month 6-Year 1 through month 5-Year 2]

Completed. During June 1996, first division assigned to the helpline condition received information.

- G) Begin availability of telephone helpline and mail support for appropriate groups. [month 6-Year 1 through month 3 for mail and month 5 for helpline of Year 3]

Completed. Initiated during June 1996.

- H) Start follow-up assessment of smoking status post recruit training among women who reported themselves as smokers when they entered the Navy. [beginning month 8 and month 11 (i.e., three and six months, respectively, after leaving recruit training)]

Completed. Initiated during August 1996.

Milestones:

- A) Complete interim report describing the initial stages of the study.

Completed.

- B) Provide preliminary findings on the prevalence of self-reported smokers among women entering the Navy, as well as changes in their self-reported smoking status after eight weeks in the "smoke free" recruit training environment.

Completed. See preliminary results in section II.B.

I. Introduction

A. Nature of the Problem

One of the primary goals of the Defense Women's Health Research Program (DWHRP) is to solve problems faced by servicewomen that will directly improve their safety, health, and military effectiveness. Facilitating nonsmoking among military women clearly fits within this DWHRP goal. Currently, military women are more likely to smoke cigarettes than their civilian counterparts (Bray, Marsden & Peterson, 1991), underscoring the need for special efforts within the military to reduce this problem. Furthermore, research indicates that women have greater difficulty quitting smoking, and remaining quit, than do men. Thus, gender-specific interventions are needed that are effective in reducing tobacco use specifically among military women.

Smoking is a modifiable personal behavior that is directly related to improving women's long-term health. Reducing (or, hopefully, eliminating) cigarette use is also an important goal for women's short-term health. Smoking can be especially damaging during the reproductive years when cigarette use can have a negative impact on pregnancy and the health of the unborn child, the newborn, and young children exposed to secondhand smoke. Smoking-related reproductive health problems among military women, as well as smoking-related health problems among young family dependents, place an additional burden on the military health care delivery system and costs.

Cigarette use also is an important issue when considering the factors that can influence military effectiveness/readiness. For example, smokers tend to exercise less and perform more poorly on military physical fitness tests (Conway & Cronan, 1992, 1988). This is a particularly important issue as military women prepare to go into job ratings previously unavailable to women, in large part because many of these jobs are very physically demanding. Thus, supporting healthful behaviors, discouraging unhealthful behaviors, and understanding the gender-specific factors that might support or inhibit such behaviors will become an even more important concern as women branch into virtually all domains of military operations.

The Department of Defense has recently become the largest employer in the US to mandate a total smoke-free workplace ban in which smoking is prohibited in virtually all indoor work spaces (DoD, 1994). This ban, although highly laudable from a health and readiness perspective, will place additional burdens (psychological, physiological, and temporal--i.e., time and location constraints for smoking) on military personnel who continue to smoke. Degradation of morale among smokers is also a concern. Consequently, it is to the military's advantage to support efforts that maintain the cessation state that is achieved by all military

recruit smokers going through basic training in all four services. Estimating that over 30% of incoming military recruits are smokers, it is clear that the military's smoking prevalence would be dramatically lowered within a decade if a high percentage of incoming recruit smokers could *maintain* the "quit status" organizationally mandated during basic training.

B. Background and Previous Work

It is estimated that more than 400,000 Americans die each year as a result of cigarette smoking, accounting for one in every six American deaths, including 30% of all cancer deaths (87% of lung cancer deaths), 21% of deaths from coronary heart disease, 18% of stroke deaths, and 82% of deaths from chronic obstructive pulmonary disease (American Cancer Society, 1995; USDHHS, 1989). Use of other forms of tobacco (e.g., cigars, pipes, snuff, or dip) also are associated with significantly elevated morbidity and mortality (USDHHS, 1986a), as is chronic exposure to secondhand smoke (Eriksen, LeMaistre & Newell, 1988; USDHHS, 1986b). Tobacco use is of particular concern to the Department of Defense (DoD) because the military has higher and heavier rates of tobacco use than civilians (Bray, Marsden & Peterson, 1991) and because of the adverse effects of smoking on personnel health and performance (Conway & Cronan, 1992, 1988).

Recent civilian trends indicate that the prevalence of smoking and the burden of tobacco-related disease is shifting, as the smoking rates of young adult women are beginning to exceed those of men (Pirie, Murray & Luepker, 1991; Pierce, Fiore & Novotny, 1989; USDHHS, 1988; Remington, Forman, Gentry, et al., 1985.) Of particular concern to the DoD, a study comparing substance use in standardized samples of civilians and military personnel concluded that military women are more likely to smoke and to smoke heavier than their civilian counterparts (Bray, Marsden & Peterson, 1991). Another study reported a 50% smoking rate among women entering the US Navy compared to a 41% rate for men (Pokorski, 1992). As the numbers and roles of women in the military expand, it is of critical importance to reduce their smoking prevalence and the smoking-related adverse effects on readiness, personal health, medical care costs, and the health of their children.

There have been reductions in military smoking rates in recent years due at least in part to military health promotion efforts, yet increased support for cessation is needed to further reduce smoking rates (Pokorski, 1992). Cessation is a complex behavioral problem for smokers, most of whom experience substantial difficulty quitting (Fiore, Novotny & Pierce, 1989). In general, however, smokers prefer to quit without intensive intervention. Convenient information and support in the form of telephone hotlines and mailed self-help materials have been shown to be effective (Gruder, Mermelstein, Kirkendol, et al. 1993; Ossip-Klein, Giovino,

Megahed, et al. 1991). The issue of cessation is complicated, however, by the fact that women and men may have different cessation experiences. For example, women and men are similar in terms of their intentions to quit and their number of quit attempts, yet women are less likely to succeed in their cessation efforts (Kabat & Wynder, 1987; USDHHS, 1979; Gritz & Jarvik, 1978). Black women in particular have a low propensity to quit (Geronimus, Neider & Bound, 1993). Theoretical and empirically-based explanations for this finding point to gender differences in the following: severity of withdrawal symptoms (Guilford, 1967), confidence and self-efficacy for quitting (Blake, Klepp, Pechacek, et al., 1989), perceived social/psychological benefits of smoking (e.g., stress reduction) (Lacey, Manfredi, Balch, et al. 1993; Grunberg, Winders & Wewers, 1991), media and social influences to smoke (Grunberg, Winders & Wewers, 1991; Ernster, 1985; Howe, 1983), cognitive and emotional reactions to cessation lapses (O'Connell, 1990; Blake, Klepp, Pechacek, et al., 1989), normative biases regarding smoking prevalence (Lacey, Manfredi, Balch, et al., 1993), cessation coping strategies (Sorensen & Pechacek, 1987), occupational status and perceived control at work (Hibbard, 1993), knowledge and concern about the health risks of smoking (Sorensen & Pechacek, 1987; Ernster, 1985) and biological sensitivity to nicotine (Perkins, 1996; Grunberg, Winders & Wewers, 1991).

During cessation attempts, women may rely on informal sources of social support more than men do (Sorensen & Pechacek, 1987.) In addition, studies consistently report that women fear cessation-induced weight gain, and that this concern may contribute to relatively higher relapse among women (Marcus, Albrecht, Niaura, et al. 1991; Perkins, Epstein, & Paster, 1990.) Weight gain may be particularly worrisome for women in the military because their fitness level and weight are routinely tested, and unacceptable levels are grounds for discharge (OPNAVINST 6110.1D, 1990). The findings above suggest that smoking cessation interventions should be gender-specific, and that effective cessation programs should include convenient social support and weight management strategies (e.g., focus on exercise and nutrition) (Marcus, Albrecht, Niaura, et al., 1991; Sorensen & Pechacek, 1987.)

Comprehensive DoD and service-specific policies have been implemented that address the prevention and reduction of smoking by mandating smoke-free work places and cessation support for military personnel (DoD, 1994; SECNAVINST, 1986). The US Navy, for example, prohibits tobacco use during recruit training for the entire eight-week duration of basic training. A recent study by two of the proposed investigators found a meaningful impact of the Navy's no-smoking policy on the smoking behavior of male recruits at graduation from basic training (40% self-reported quit rate) (Hurtado & Conway, 1996). However, because the 1-year quit rate indicated substantial relapse, the authors recommended cessation education and skills training to help new Navy personnel maintain long-term cessation. An unpublished study by the same investigators of male and female enlisted recruits found that the short-term positive effects of the smoking ban

during basic training was more dramatic for women smokers than for men (i.e., a 43% reduction in smoking prevalence for women versus 15% reduction for men). However, women also showed greater relapse at the one-year follow-up (67% increase in smoking for women versus 38% increase for men).

C. Purpose of Present Work

The primary purpose of this study is to test an innovative approach aimed at reducing tobacco use among Navy women. The study, entitled Operation Stay Quit (OSQ), is designed to implement and evaluate two relatively "nonobtrusive" (i.e., telephone helpline and mail) relapse-prevention strategies supporting maintenance of the organizationally-enforced "quit status" achieved by all recruits during their basic training. In addition to a standard-treatment control group, one intervention group will be encouraged to access a toll-free, telephone helpline for support and counseling to remain a nonsmoker or to quit again if they have relapsed into smoking; the other intervention group will receive a series of monthly mailings to support and encourage nonsmoking during their first year of naval service.

1. Hypotheses

The investigators' primary hypotheses regarding the smoking rates of Navy women during their first year of service are the following:

- (a) The prevalence of self-reported smoking among women recruits at entry into the Navy will decline significantly by the end of basic training as a result of exposure to the mandatory no-smoking policy and standard tobacco use education received during recruit training. This result has been observed previously in men recruits (Hurtado & Conway, 1996). And, based on a small sample of unpublished data on women by these investigators the percentage change from self-reported smokers to nonsmokers by the end of training is expected to be greater in women than previously reported for men.
- (b) The relative percentages of former smokers who *relapse into smoking* after leaving the Recruit Training Command will be ordered as follows:
 - (i) lowest relapse rate in the women assigned to the condition with access to and encouragement to use the telephone helpline,
 - (ii) intermediate relapse rate in the women assigned to the intervention condition receiving regular mail support, and
 - (iii) highest relapse rate in the standard-treatment group of women who receive no intervention supporting maintenance of smoking cessation after graduating from recruit training. It is hypothesized that the telephone helpline group will have lower relapse rates than the mail-

support group for several reasons. Although everyone in the mail-support group will receive intervention materials, this approach is a *passive* strategy and is, therefore, expected to have a lower impact than the *active* strategy involved in the telephone helpline approach. Also, whereas only a subset of individuals in the helpline group will actually use the phone service, it is expected that this intervention strategy will be very effective for those who do call. In addition, incentives will be offered to encourage use of the helpline.

- (c) "Stage-of-change" patterns of cessation and relapse curves are expected to be different across the groups based on comparisons of the 3-, 6-, and 12-month measures of smoking status after leaving recruit training. The steepest relapse curve post-RTC is expected in the standard-treatment control group. The flattest relapse curve is expected in the group who receives the telephone counseling.
- (d) Considering only the intervention group with access to the telephone helpline after leaving the RTC, women who call the telephone helpline will have a lower smoking relapse rate at the 12-month follow-up than will women who do not use the helpline.

2. Technical Objectives

The specific questions to be addressed by the primary technical objectives of this project are as follows:

- (a) After exposure to the RTC's 24-hour-per-day no-smoking policy (i.e., mandatory "cold turkey" cessation for eight weeks) do a significant number of women who smoked when they entered the Navy modify their self-concept as smokers and report that they are *former* smokers at the end of recruit training?
- (b) What percent of women smokers relapse into smoking again after having spent an 8-week period of mandatory cessation? Does this percentage vary by demographic subgroups (e.g., age, education, ethnicity), by psychosocial predictors (e.g., "stage of change" for smoking cessation), or by Navy environmental factors (e.g., ship versus shore command, deployment status, job rating, type of technical training)?
- (c) Are the two cessation-support interventions tested in this study more effective than the Navy's "standard treatment" in preventing smoking relapse after leaving recruit training? What is the relative effectiveness of the telephone helpline support compared to the mailed support in preventing smoking relapse?

II. Body

A. Methods

1. Study Setting

All Navy recruits - women and men - receive their basic training at the Recruit Training Command (RTC), Great Lakes, Illinois. The RTC is the setting for recruitment into the study, as well as baseline and graduation assessments of smoking status. All recruits go through an 8-week basic training program as their introduction to the Navy. A 24-hour-per-day ban on smoking is in place for the entire eight weeks of training.

2. Participants

Study participants consist of volunteers from among all female recruits entering the Navy between March 1996 and February 1997 (approximately 12 consecutive months). A recruitment period of approximately one year was chosen due to the seasonal variation in the characteristics of recruits. This should produce an initial sample size of approximately 8,000 women. With an estimated 35% current smoking rate at entry into the Navy, this should produce a follow-up sample of approximately 2,800 women smokers.

3. Design

The research is a longitudinal field experiment in which women recruits are randomly assigned to one of three conditions and are followed over five repeated assessments. All women recruits are approached during processing week (p-week) regarding participation in the study. After being given a description of the study, they are asked to give voluntary consent to participate and complete a baseline survey. Just prior to graduation, these recruits are asked to complete a graduation survey to ascertain changes in self-concepts regarding smoking status. All recruits who describe themselves as smokers on the baseline survey comprise the follow-up study group, which is assessed three additional times over the course of one year post-RTC training.

The three study conditions are:

- (a) **control** - standard recruit training information and no other treatment (RT-only),
- (b) **telephone** - standard recruit training plus access post-RTC to a toll-free telephone helpline to support relapse prevention or support for quitting again (RT + phone), and

- (c) *mail* - standard recruit training plus a series of post-RTC regular mailings with incentive items to support relapse prevention and encourage quit attempts (RT + mail).

Because all recruit training activities are conducted as divisions of approximately 80 women, random assignment to condition is made by division rather than individual. Thus, divisions are randomly assigned to one of the three study conditions: (a) RT-only, (b) RT + phone, and (c) RT + mail. Although the unit of randomization is division, the unit of all analyses is the individual. This is appropriate because individuals are essentially randomly assigned to divisions (i.e., in the order they arrive at recruit training).

Smoking relapse typically occurs relatively soon after a quit attempt, therefore several assessments of smoking status are made during the first year post-RTC. It has been estimated that approximately 70% of people relapse within three months of a cessation attempt, with an additional 10-15% relapsing between 3 and 12 months (O'Connell, 1990). Participants are sent a follow-up smoking status survey at 3-, 6-, and 12-months after graduating from recruit training.

4. Approach

(a) *Entry Survey Procedures*

On P4-day (i.e., fourth day of processing in the training cycle), all female recruits go through the "Wellness Clinic." At this time women receive a gynecological exam and are given information in lecture format on several areas of health promotion, including pregnancy and birth control, sexually-transmitted diseases, and substance abuse (including drugs, alcohol, and tobacco). Prior to being given any health information, the OSQ study is introduced and informed consent procedures are systematically conducted using a 10-minute videotaped presentation. Recruits who volunteer to participate in the study are asked to complete a brief one-page "Entry Survey" related to their tobacco use *prior* to entering the Navy (see Appendix A).

(b) *Graduation Survey Procedures*

During the week prior to graduation from recruit training (typically on Week 7-3 day), recruits attend a "Recruit Critique" session during which they provide anonymous feedback by questionnaire or written comments regarding their training. After completing their feedback, any male recruits (if present) are dismissed to muster outside while female recruits remain approximately 15 minutes longer. During this time an OSQ staff member reminds recruits about the study and asks volunteers to complete a brief one-page "Graduation Survey" (see

Appendix B). The "Grad Survey" asks several questions about tobacco use that are similar to the those on the "Entry Survey" (e.g., description of self as a smoker or nonsmoker, intentions to smoke) so that changes during the 8-week period of mandatory smoking cessation can be assessed.

After the surveys are completed, female recruits in divisions assigned to the control or mailed-intervention conditions are dismissed to continue the training schedule. However, recruits in divisions assigned to the phone-intervention condition are given a 5-minute introduction to the helpline counseling service, given a ball-point pen with the 1-888-toll-free helpline number printed on it, and encouraged to call the counseling service for help remaining quit or help quitting again if they relapse after leaving recruit training.

(c) *Tracking Procedures*

(i) SDS Weekly Orders File

OSQ uses several Navy data sources to locate and track study participants. The orders-disseminating computer system maintained by Source Data Systems (SDS) at BUPERS provides the basis for tracking participating recruits immediately after graduating from recruit training up until three months post-graduation. SDS electronically sends OSQ staff a weekly file of all women recruits receiving orders that week for their post-graduation assignment. Assignments are in the form of Unit Identification Codes, or UICs. These weekly SDS files are processed (see Appendix C for information about the steps involved in processing SDS files) and are added to a cumulative file that provides information about a recruit's early assignment (e.g., Service School Command, Great Lakes; Hospitalcorps School, San Diego). SDS files have been found to furnish reliable information about a recruit's whereabouts up to three months post-graduation.

(ii) Tracking Subjects Without Orders

Each week female recruits in divisions that are due to have orders are matched with the SDS orders file. A listing of subjects who do not have orders is generated. These "non-matches" are checked against a number of different databases to determine recruit status and current orders: ASMO-Central records for attritions and setbacks, the RAMS database, and the Navy-wide locator database.

The OSQ master database is updated with any new information regarding orders, addresses, setbacks, holds or attrition for each subject. The updated file is re-run once per week to determine new

matches. Anyone who still does not match is checked again the next week against the various databases.

If a subject has graduated from RTC and does not have orders at eight weeks post-graduation date, the BUPERS Enlisted Master Record (EMR) is checked to determine the status of the subject. If there is a current UIC, that UIC is used as a participant's current address. If there is a "loss date" the subject is considered an attritee from the Navy and the OSQ master database is updated.

(iii) EMR for 3-Month Follow-up and Beyond

For tracking of participants after three months post-graduation, the EMR residing on the NHRC VAX computer is accessed electronically each month and information is downloaded to the OSQ main computer. Information about a recruit's present and future UIC, along with demographic data, is extracted from the 390-character EMR (see Appendix D for a description of EMR data elements). In addition, the EMR contains "loss dates" that are used to identify Navy drop-outs/attriters throughout the duration of the study.

(iv) Other Tracking Procedures - Returned Mail

Second attempts are made to find a corrected address or updated enlistment status for all mail (both intervention and evaluation materials) returned to the project. When mail is returned, the most recent EMR is checked to determine if there is a new UIC for that subject. The procedures outlined below are then followed:

- (a) If a new UIC is listed, the subject's address file is updated and the mail is sent out a second time with the new address. The specific tracking variable is changed to indicate that a second attempt was made to mail the material.
- (b) If it is an old UIC, or the same UIC, the Navy-wide locator is consulted to determine if there is a new UIC listed. If a new UIC is identified, the OSQ database is updated and the material is sent out a second time. If no new UIC is located, the material is sent a second time to the old address. Tracking variables are changed to indicate that a second attempt was made to mail the material.
- (c) If the same piece of mail is returned a second time for any subject, the tracking variable in the master database is changed to indicate that the piece of mail was never received by the subject.

(d) Description of Interventions

Two intervention strategies are employed in this study. One intervention group is encouraged to call a toll-free telephone helpline for support and counseling on how to remain a nonsmoker or how to quit again if relapse has occurred. This is considered an *active* intervention in that it is initiated by the participant. The second intervention group receives a series of regular motivational mailings to support and encourage nonsmoking during the first year of naval service. This is considered a *passive* intervention in that no action is required by the participant.

Both relapse prevention interventions use a cognitive-behavioral approach that assumes behavioral changes such as quitting smoking are primarily due to self-regulation and motivation (Marlat & Gordon, 1985; Baumeister, Heatherton & Tice, 1994). The interventions address issues specific to women and cessation, and are based on empirical findings on gender differences in smoking cessation (Gritz, Brooks & Nielsen, 1995). Finally, both interventions are designed to address issues relevant to Navy life and utilize strategies for quitting and remaining smokefree that are Navy-specific.

(i) Mail Intervention Materials Development and Procedures

Subjects assigned to the mail intervention condition receive a series of six mailings beginning one month post-graduation and continuing for a period of 10 months. The mailings consist of a colorful, one-page motivational flyer accompanied by a small "behavioral cue" item. The intervention modules are mailed out once per month for the first four months post-RTC, then every three months for the remainder of the 10-month period. See Appendix E for copies of the intervention modules.

Module 1: "To Smoke or Not To Smoke?"

Research indicates that women are more likely than men to attribute successful cessation to luck rather than to skill (Blake, Klepp, Pechacek, et al. 1989). Module 1 addresses stress management techniques and skills for identifying potentially difficult situations. A foam "stress grip" with the OSQ logo accompanies the written material with a "tip" to squeeze the stress grip to help delay any urges to smoke.

Module 2: "Ship Shape"

Fear of post-cessation weight gain is a well-documented reason women give for continuing to smoke or relapsing (Chen, Horne & Dosman, 1993). Weight gain is particularly relevant to Navy women who must meet weight/body fat and fitness standards. Module 2 addresses the fear of weight gain and provides hints on staying fit.

Small boxes of gum with the OSQ logo accompany the written material with a "tip" to chew gum as a low-fat, low-calorie way to satisfy cravings.

Module 3: "What's In It For You?"

Women differ from men in their perceptions of the benefits of quitting smoking and staying quit (Sorensen & Pechacek, 1987). As women in the Navy often do not have a lot of disposable income, the economic benefits of quitting are relevant. Module 3 emphasizes the economic benefits of not smoking. A calculator with the OSQ logo accompanies the written material with a "tip" to calculate the extra money they will have to spend when they do not buy cigarettes.

Module 4: "It Takes Time..."

Women tend to be more tentative than men about their ability to remain smoke-free and believe relapsing is an indication of failure (Blake, Klepp, Pechacek, et al. 1989). Module 4 emphasizes the process of quitting and the idea that becoming a nonsmoker takes time. A pen with the OSQ logo accompanies the written material with a "tip" to write down alternative activities to smoking.

Module 5: "Need Help?"

Studies have shown that women respond positively to the use of informal social support when trying to quit or remain quit (Lacey, Manfredi, Balch, et al. 1993; Coppotelli & Orleans, 1985). Module 5 emphasizes the importance of social support and identifies strategies for teaching others how to be supportive during the quitting process. A credit card size address book with the OSQ logo accompanies the written material with a "tip" to keep a friend's phone number handy.

Module 6a: "Congratulations!"

For the final module, recent self-report surveys are used to identify the participant's current smoking status. For the nonsmoker, Module 6 emphasizes that she is now a nonsmoker and reminds her that she still may face difficult moments. A pocket mirror with the OSQ logo accompanies the written material with a "tip" to look in the mirror and look at the nonsmoker.

Module 6b: "Still Smoking?"

For the smoker, Module 6b identifies rationalizations used to justify smoking and de-bunks those ideas. The emphasis of this final module is that millions of people have successfully quit smoking. A pocket mirror with the OSQ logo accompanies the written material with a "tip" to look in the mirror and picture a nonsmoker.

(ii) Phone Intervention and Procedures

The telephone helpline is an innovative approach to smoking relapse prevention. Women assigned to this condition receive information regarding the helpline services prior to leaving recruit training, and are encouraged to call the number upon leaving recruit training. Incentives such as a pre-paid long distance phone card are offered to encourage phone calls. Once the participant makes the initial call, the helpline counselor schedules a series of follow-up phone calls, thus creating a proactive counseling procedure. This procedure creates a certain level of accountability, as well as fostering social support. The follow-up sessions are scheduled in relation to the participant's probability of relapse, thereby providing assistance when they need it most (Zhu & Pierce, 1995).

The counseling protocol has been adapted to reflect the relapse issues most relevant to Navy women, as discussed above. In particular, the phone counselor helps the caller identify situations in which she feels she is most likely to relapse and works with her to identify responses/alternative actions to take to reduce the likelihood of relapse. In subsequent phone calls, the counselor discusses any relapse episodes and works with the caller to identify better ways to respond in situations that prompt smoking. Alternatively, if the caller has remained quit, subsequent phone calls are used to encourage the success and identify long-term strategies for remaining quit. A copy of the counseling protocol is found in Appendix F.

(e) *Measures*(i) All Surveys

Primary measures for evaluating intervention effects include self-report survey measures of smoking status, smoking frequency and amount, quit attempts, and stage of change for cessation. Investigators from SDSU, UCSD, and NHRC developed smoking measures for this unique population in part based upon those used by other researchers examining smoking and cessation among Navy and civilian personnel (Bray, Marsden, & Peterson, 1991; Bray, Kroutil, Wheelless et al., 1995; Hurtado & Conway, 1996; Conway, Trent, & Conway, 1989; Farkas, Pierce, Zhu et al., in press). Where possible, comparability with other surveys, such as the DoD worldwide survey of drug use (Bray et al., 1995) and the California statewide tobacco use survey (Pierce et al., 1994), was maintained.

Three brief, color-coded machine-scannable surveys were developed to assess smoking at five different points: RTC entry, RTC graduation, 3-month, 6-month, and 12-month post-graduation. The entry survey (Appendix A) includes the consent statement, some

personal identifiers, items addressing baseline smoking (i.e., smoking prior to recruit training), and perceptions of being a smoker. In addition, questions about quit attempts prior to recruit training, and intentions to smoke after leaving RTC are included.

The graduation survey (Appendix B) is administered approximately one week prior to leaving RTC. Items mainly focus on perceptions of being a smoker after eight weeks of involuntary cessation. In addition, several items address RTC smoking policy and its perceived affect on one's future likelihood of smoking.

Appendices G-I present the 3-month, 6-month, and 12-month follow-up smoking surveys, respectively. The content of the three surveys is identical, and the surveys are color-coded to indicate the assessment time point. As stated on each survey, a monetary incentive is offered (i.e., a chance at winning \$100) for returning completed surveys. Follow-up survey measures primarily address smoking status and quit attempts. Many items on the follow-up surveys provide the reference point "since graduating from recruit training" so that patterns of relapse and quitting can be determined.

(ii) UCSD Data Collection

The counseling protocol (Appendix F) has been developed by UCSD telephone counselors for subjects in the helpline condition. Data collected during the call include background and identifying information, smoking status, self-efficacy and motivation to quit smoking, quitting history, reasons to quit smoking, social support and social influences to smoke and quit, and general health status (e.g., pregnancy). In addition, quantitative data are collected about situations the subject has encountered (or anticipates encountering) that may lead to relapse. Measures will be used to describe the characteristics of helpline participants and investigate potential predictors of relapse and successful cessation.

(iii) EMR Demographics

As mentioned above, the EMR provides important variables for tracking research participants over the course of the study. Tracking variables include current, previous, and future UICs (i.e., commands), dates of transfer to and from UICs, loss codes, sea versus shore status, and regular versus reserve status. In addition to tracking variables, the EMR also provides sociodemographic and command-related information that will be examined as mediators and moderators of intervention effects. These potential mediators and moderators include age (i.e., birthdate), race/ethnic group, rating, paygrade, Navy enlisted classification (NEC), years of education, marital status,

number of children, Navy performance and evaluation information, and command size.

(f) Analyses

Analyses to date mainly have been descriptive procedures, such as frequency distributions and chi-square analyses of categorical variables. These preliminary analyses have been conducted to determine participation rates, examine baseline smoking rates of incoming recruits, and assess changes in perceptions of being a smoker after eight weeks of recruit training.

B. Results

1. Focus Groups

To assist in designing materials and strategies for both interventions, a series of five focus groups were conducted with approximately 100 Navy women at various stages in their Navy careers. Focus groups were conducted in San Diego at the Naval Hospital Corps School, Naval Training Center Service School Command, Submarine Base and Fleet Anti-Submarine Warfare Training.

All smokers indicated that boredom was the primary reason they either began smoking again after leaving RT or even initiated smoking after RT. Although many felt the Navy officially discourages smoking, unofficially smoking is supported because it is a way to take a break, socialize, and have something to do. Several nonsmokers were told by smokers "If you don't smoke now, you will soon," or "Go to the smoking pit to get the information you need." Women who had graduated from recruit training in the past few weeks indicated that smoking was the one personal freedom they had left and they did not want to give that up.

All of the smokers indicated that pregnancy would be a strong motivator to quit. While a few indicated that they felt less physically fit since returning to smoking, most felt it was easy to do well on physical readiness tests and this was not a particular concern. A few even mentioned specific senior personnel who performed outstanding on the fitness tests yet smoked regularly. Others felt teeth color and skin problems might motivate them to quit and a few felt that the dangers of environmental tobacco smoke would be a motivator if they had children.

Being around other smokers and giving up smoke breaks would be the most difficult situations to face if they were to quit. Going to the "smoke pit" is an important socializing outlet and it would be difficult to find somewhere

else to go to socialize and get information. Several women indicated that it would be easier to quit if a co-worker quit, as well.

This information was used for a number of purposes. For the mail intervention, Navy-specific situations, procedures and activities were drawn upon to make the educational material relevant to these women. For the phone intervention, the focus group information was used to guide the phone counseling protocol.

2. *Participation in Intervention and Assessment*

Through mid-September, 2,523 women recruits within 39 divisions have completed consent forms and entry surveys. This number represents 93% of "potential" participants—that, is 93% of all women entering recruit training. Approximately 1,540 women within 27 divisions have completed graduation surveys, 771 of whom also have been introduced to the 1-888 helpline. Women in the helpline condition who, on the entry survey, identified themselves as experimenter, occasional, daily, and former smokers (n=295) have been mailed a reminder card after graduation to call the helpline. To date, only two calls have been received, although more reminders and incentives to call are planned.

Approximately 200 participants have been mailed a 3-month follow-up survey. To date, the response rate to that survey is low (approximately 10%). However, aggressive strategies are being conducted to increase follow-up survey return rates. These strategies include, (a) offering monetary incentives (e.g., cash lottery prizes) to return surveys, (b) publishing the names of the survey lottery winners, (c) sending postcards to remind the participants to return surveys, (d) providing a toll-free number for participants to call and request replacement surveys, (e) phoning participants to collect survey data, (f) contacting commanding officers to assist in distributing and collecting surveys, and (g) mailing a brief "postcard survey" to collect a few critical variables. These strategies are expected to increase the response rate to the 3-month follow-up survey, and may be used for the 6-month and 12-month surveys as well.

3. *Extent of Intervention Delivery*

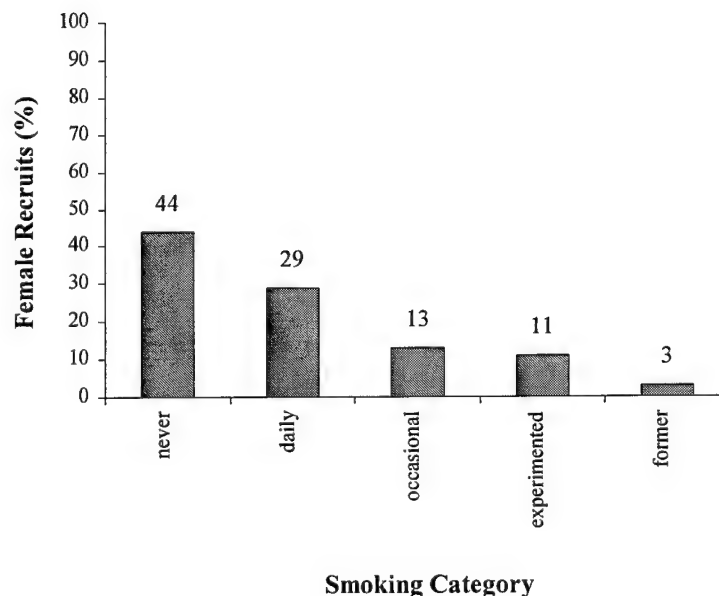
A number of variables have been created to monitor the delivery of mail-group intervention modules and helpline reminders. To date, Module 2 has been sent to 170 participants in the mailed-materials condition, 72 participants have been sent Module 2, and 72 participants have been sent Module 3. Exactly 295 women have been sent the post-graduation reminder to call the 1-888 helpline. Two attempts are made to successfully deliver all intervention mailings and helpline reminders, and the outcome of attempts is recorded (i.e., delivered at first attempt, delivered at second attempt, or not delivered). To date, the rate of undeliverable mail after two attempts is low (i.e., less than 2% on average). Measures of the "dose" or

extent of implementation will be used for conducting subgroup analysis in determining intervention effects.

4. *Smoking at Entry to Recruit Training*

At entry to recruit training, 1,043 women (41.4% of all those surveyed) reported smoking at least 100 cigarettes in their entire life. Approximately 30% of all women reported smoking "every day," while 17% reported smoking only "some days." Among the 44.5% who reported smoking in the 30 days prior to recruit training, the majority smoked 1-5 cigarettes a day, although the amount varied considerably from less than one a day to over 40 cigarettes a day. Almost half of smokers reported smoking their last cigarette the day they arrived at recruit training; for the other half, the last cigarette had been more distant. Regarding perceptions of smoking status, Figure 1 shows that 29% of women recruits classified themselves as daily smokers at entry to recruit training, and 13% and 11%, respectively, considered themselves occasional and experimental smokers. Roughly 3% of women entering recruit training considered themselves former smokers.

Figure 1
Perceptions of Smoking Status at
Entry to Recruit Training



Although these Navy recruits were young (typically 18-19 years of age), most smokers had experience with cessation attempts. A full 68% of smokers had ever tried to quit. Among those who had tried to quit, most had tried 1-2 times, although as many as 15% had tried to quit five or more times. Fifty-five percent of those attempting to quit reported a recent

attempt within the last six months. Quit attempts were typically a week or less in duration.

5. *Entry-to-Graduation Changes in Perceptions of Being a Smoker*

Currently, over 1,350 recruits have usable matched entry and graduation survey data. Preliminary analyses of these longitudinal data indicate that, among those who smoked prior to recruit training, there were significant changes at graduation in perceptions of being a smoker. Approximately 590 women in this cohort reported being a "never smoker" at entry, and at graduation, virtually all of them (99%) continued to perceive themselves as non-smokers. As shown in Figure 2, of the 402 women in this cohort who reported they were daily smokers at entry, 77% (n=308) reported they were still smokers at graduation, while 23% (n=94) classified themselves as non- or former smokers. Changes in perceptions were even more dramatic among women describing themselves as experimenters or occasional smokers at entry. Over half of 149 experimenters perceived themselves as non- or former smokers at graduation (Figure 3), and 68% of 184 occasional smokers reported such a change (Figure 4). Few women at entry reported being former smokers (n=27), and as shown in Figure 5, at graduation most reported they were still non- or former smokers. Interestingly, 22% of entry former smokers reported they were smokers at graduation. It is important to note, however, the small number of women in the former smoking category; therefore 22% represents only six recruits.

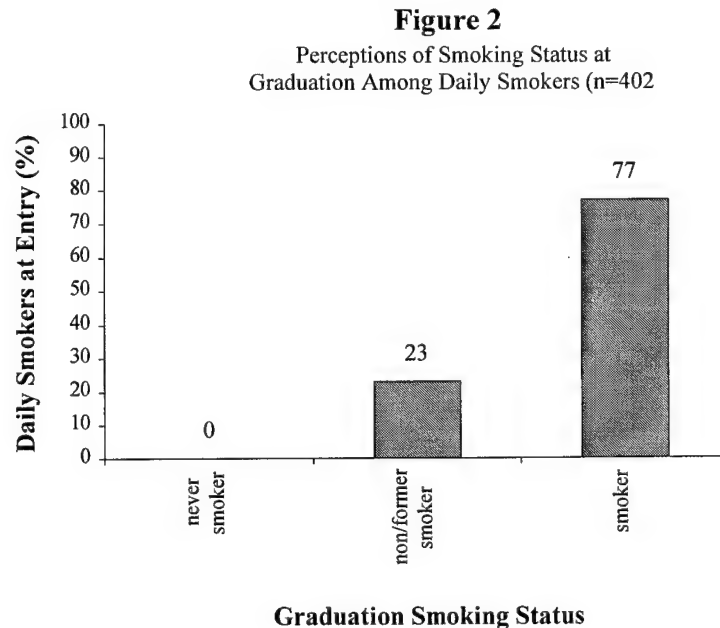


Figure 3
Perceptions of Smoking Status at
Graduation Among Experimenters (n=149)

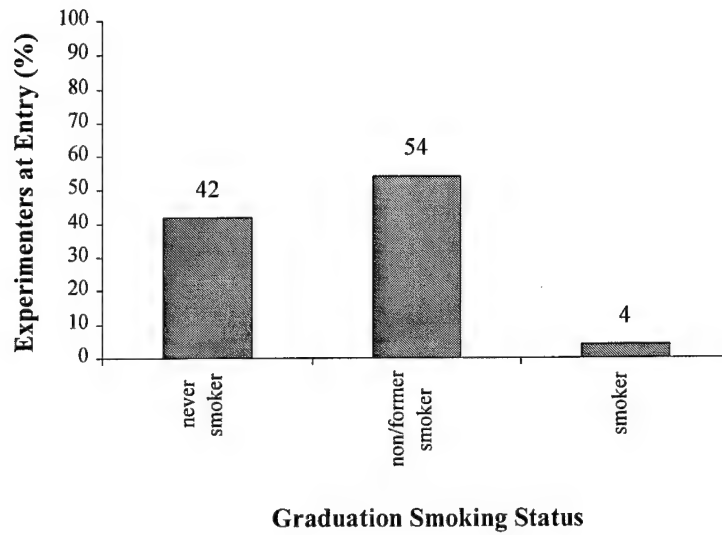


Figure 4
Perceptions of Smoking Status at
Graduation Among Occasional Smokers (n=18)

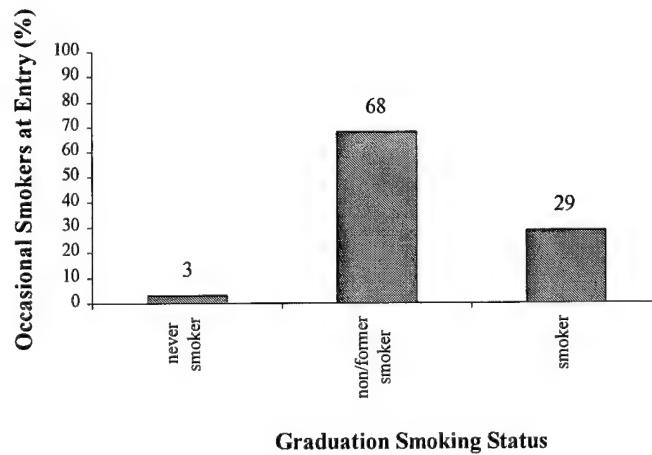


Figure 5
Perceptions of Smoking Status at
Graduation Among Former Smokers (n=27)

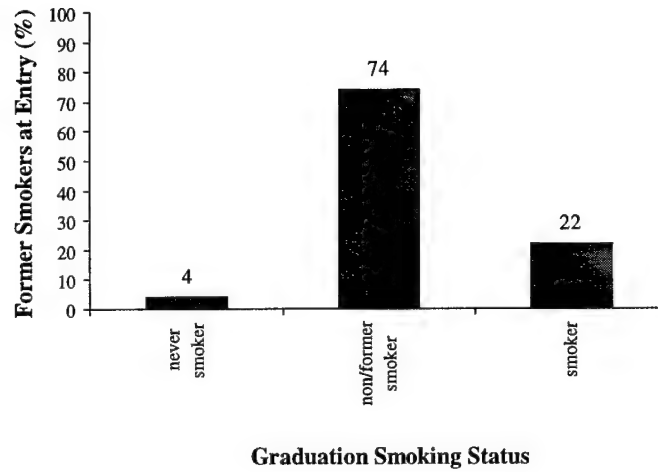
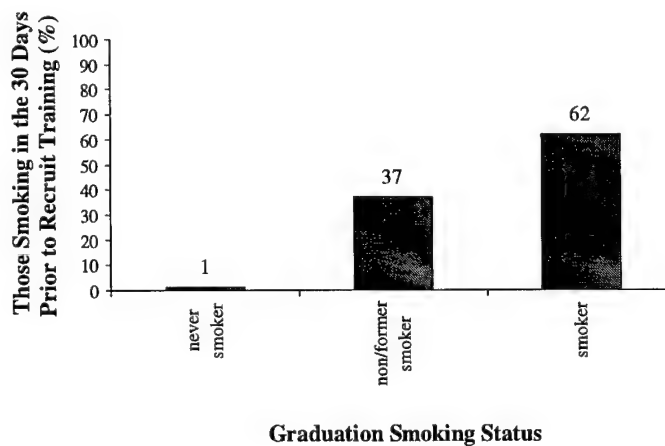


Figure 6 presents changes in perceptions at graduation based on another entry survey item: the percent of women reporting they smoked in the 30 days prior to recruit training. Thirty-seven percent of those reporting some smoking in the 30 days prior to recruit training perceived themselves to be non/former smokers at graduation.

Figure 6
Perceptions of Smoking Status at
Graduation Among Those Smoking in the 30 Days
Prior to Recruit Training (n=602)



6. Publications, Presentations & Awards

The Health Psychologist, Spring 1996. Operation Stay Quit was invited to submit an article regarding our research with Navy women. "Operation Stay Quit: Smoking relapse prevention for Navy women recruits" appears in the Spring 1996 edition. See Appendix J for a copy of the article.

Navy-wide Medical Press Release. A press release describing the project and its overall goals is being distributed through Navy MEDNEWS. See Appendix K for a copy of the release.

Intervention Manuscript. A manuscript entitled "Operation Stay Quit: A mail intervention to prevent smoking relapse among Navy women" is under review with the *American Journal of Health Promotion*. See Appendix L for a copy of the manuscript.

1996 American Public Health Association Annual Meeting. An abstract entitled "Effect of an 8-week involuntary smoking ban on women's perceptions of being a smoker" was accepted for presentation at the APHA annual meeting (see Appendix M for a copy of the abstract).

Master's Thesis. A second-year candidate in epidemiology is conducting her thesis using project data. The thesis is entitled "Smoking in U.S. Navy women recruits: Sociodemographic correlates and comparisons with civilian women." Data analyses will be conducted on baseline survey data.

Doctoral Dissertation. A doctoral candidate in epidemiology will be conducting her dissertation using project data. The dissertation is entitled "The epidemiology of smoking among U.S. Navy women recruits: Prevalence, correlates and relapse prevention." Data analyses will be conducted on baseline, graduation and 3-month follow-up data.

Augmentation Award for Science and Engineering Research Training (AASERT). Operation Stay Quit was granted an AASERT award in the amount of \$28,796 for a two year period. This award is supporting the work and professional development of one graduate-level research assistant.

III. Conclusions/Discussion

A. Preliminary Findings

Analysis of data collected during the first year of the study has provided interesting information. Even more Navy women recruits had experience smoking cigarettes prior to entering recruit training than had been expected. Over 40% of women reported either daily or occasional cigarette use prior to entering the Navy. This raises the question of whether young women who enlist in the

military are more likely to smoke than their civilian counterparts who do not enlist, or whether the smoking rates observed for these young women are typical of the civilian rates in comparable socio-economic groups. One of the project's graduate students, funded under AASERT Grant No. DAAH04-96-1-0116, is currently working on analyses to address this issue.

Another preliminary finding of particular interest was the change in self-reported smoking status from entry into recruit training to graduation from training. Considering only the smokers (i.e., those who reported smoking during the past 30 days) at entry into RTC, 37% reported themselves to be non/former smokers just prior to graduation from RTC, whereas 62% continued to report themselves as smokers, even though they had not been able to smoke at all during the prior eight weeks. Both of these findings represent interesting psychological processes related either to changing or maintaining one's self-concept regarding smoking.

B. Accomplishments and Challenges

Progress during the first year of this study has been outstanding. All objectives and milestones for making contacts, initiating data collection and tracking at the RTC, developing and starting the post-RTC intervention efforts, and initiating post-RTC follow-up have been on track. All female divisions that have formed at RTC since mid-March 1996 have become part of this study, with very high individual participation rates. The only unanticipated circumstance during the first-year efforts was the observation that fewer women were entering the Navy than recruiters had anticipated. Based on the BUPERS Accession Plan for FY96, it was anticipated that about 3,900 women recruits would be entering from mid-March through mid-August 1996; however, only about 2,725 women have actually entered RTC during this period. Thus, to date, our sample size is smaller than anticipated because of lower than expected female accession numbers.

As we complete the first year and initiate the second year of the study, two issues of particular concern have become apparent. First, we are concerned about the lack of participants in the telephone helpline condition actually calling to receive the phone counseling. Although information from our focus groups suggested that very few women are seriously interested in quitting smoking for good immediately after leaving recruit training, we still did not anticipate the extent of non-interest that we have observed. However, other information from the focus groups has led us to believe that more women might think about quitting smoking after they get settled into their first actual Navy job. Thus, we have instituted procedures to send postcards at 3.5 months and 6.5 months post RTC reminding phone-condition participants about the availability of the helpline. We believe the reminder postcards will serve as cues to call for counseling help at points when they might be more susceptible to quitting smoking (e.g., noticing the costs of cigarettes with limited incomes; feeling the effects of smoking while exercising in preparation for the required physical fitness testing).

The second primary concern is the return rates for the post-RTC 3-month follow-up surveys. Although we have just begun sending the 3-month follow-up surveys to the first several divisions, the return response rate so far has been much lower than anticipated. Response rates for mailed surveys typically are quite low (e.g., in the 25-35% range). Also, in previous Navy surveys conducted by the present investigators, we have noted an inverse relationship between returning completed surveys and several factors--i.e., those who were younger, had lower rank, and had fewer years in the service were less likely to return surveys than older, higher ranking individuals with more years in the service. Thus, our low response rate was not totally unexpected, although we believed that a \$100-monthly lottery prize incentive would increase the initial response rate higher than it did.

Because the response rate has been so low, we have instituted several more aggressive procedures to obtain follow-up data. First, a brightly colored flyer announcing previous winners of the \$100 lottery prize is now included with all follow-up surveys. Second, a reminder postcard to return the completed survey for a chance to win the monthly \$100 lottery is sent to all participants several days after the survey is sent. We have begun making phone calls to participants who have not returned the follow-up survey two weeks post-mailing. Additionally, a brief "postcard" version of the survey is being developed to collect minimal information regarding smoking status if we cannot reach an individual by telephone. Such postcard versions of surveys have been used successfully by members of this research team to collect minimal data from participants who otherwise would not take the time to complete the entire survey. We will continue to test more aggressive follow-up strategies until we have substantially improved response rates.

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V. Appendices

| | |
|------------|------------------------------------|
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| B - | Graduation Survey |
| C - | SDS Tracking |
| D - | EMR Variables |
| E - | Intervention Modules |
| F - | UCSD Information Call Form |
| G - | 3-Month Survey |
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| J - | Health Psychologist Article |
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| L - | Mail Intervention Manuscript |
| M - | APHA Abstract |

Appendix A

Entry Survey

**Improving Navy Women's Health:
Preventing Smoking Relapse After Recruit Training**

San Diego State University
Graduate School of Public Health
Center for Behavioral and Community Health Studies
9245 Sky Park Court, Suite 120, San Diego, CA 92123

COMMITTEE ON PROTECTION OF
HUMAN SUBJECTS

APPROVED BY: Car
EXPIRES: 9/27/96
SAN DIEGO STATE UNIVERSITY

INFORMED CONSENT AGREEMENT

You are being asked to participate in a research study. Before you give your consent to be a volunteer, it is important that you read the following information and ask as many questions as necessary to be sure you understand what you will be asked to do.

Investigators

This research is being conducted by Dr. Terry Conway, Dr. John Elder, and Ms. Susan Woodruff from the Graduate School of Public Health at San Diego State University, by Dr. Shu-Hong Zhu of the University of California, San Diego, and by Ms. Linda Hervig and Ms. Suzanne Hurtado from the Naval Health Research Center, San Diego.

Purpose of the Study

This research is being conducted to better understand tobacco use among women entering the Navy.

Description of the Study

If you decide to participate, you will be asked to provide information about your use of tobacco and some background information in a brief survey at the beginning and end of recruit training. You may be given some information near the end of recruit training about a quit-smoking helpline. After graduation, you may receive some mailed materials about quitting smoking. You might also be asked to complete 3 other brief surveys mailed to you during the following year. Each of the surveys should only take 10-15 minutes to complete. The duration of your participation could potentially range from 8 weeks of recruit training to 1 year after graduation. You will be sent a summary of the findings if you wish.

What is Experimental About This Study

None of the procedures or surveys used in this study are experimental in nature. The only experimental aspect of this study is the gathering of information for the purpose of statistical analysis.

Risks or Discomforts

The only slight potential risk involved in participating in this study is that you may feel some anxiety or discomfort answering survey questions about your smoking status. If you begin to feel uncomfortable while filling out the survey, you may refuse to answer any question that disturbs you, or you may discontinue your participation in the study, either temporarily or permanently.

Benefits of the Study

Some participants will receive lottery prizes or small tokens of appreciation for participating in the study and completing the surveys. If you are a smoker and quit, potential benefits to you personally could include increased physical fitness and better health, although we cannot guarantee that you will experience these benefits from participating in the study. In addition, the information gained from this research on women entering the Navy may benefit other women in the military.

Confidentiality

All data and medical information obtained about you as an individual will be considered privileged and held in confidence; you will not be identified in any presentation of the results. Complete confidentiality cannot be promised, particularly to subjects who are military personnel, because information bearing on your health may be required to be reported to appropriate medical or command authorities. However, in the present study, no information will be collected from you that is sensitive or potentially embarrassing.

Participant: initial and date to indicate that you have read this page _____

Witness: initial and date to indicate that the participant has read this page _____

**Improving Navy Women's Health:
Preventing Smoking Relapse After Recruit Training**

San Diego State University
Graduate School of Public Health
Center for Behavioral and Community Health Studies
9245 Sky Park Court, Suite 120, San Diego, CA 92123

**COMMITTEE ON PROTECTION OF
HUMAN SUBJECTS**

APPROVED BY: Can

EXPIRES: 9/27/96

SAN DIEGO STATE UNIVERSITY

Confidentiality (cont)

It is the policy of the funding agency, the U.S. Army Medical Research and Materiel Command (USAMRMC), that data sheets be completed on all volunteers participating in research for entry into their Volunteer Registry Database. The information entered in this confidential database will include your name, address, Social Security Number, and the name and dates of this study. The purpose of the database is to answer any questions that may arise concerning a person's participation in the research, and to ensure that participants are adequately warned of risks. Representatives of the USAMRMC are eligible to review research records as part of their responsibility to protect human subjects in research. The information in the database will be stored for a minimum of 75 years. The information stored in the USAMRMC database is confidential.

Voluntary Nature of Participation

Participation in this study is voluntary. Your decision on whether to participate will not prejudice your future relations with San Diego State University or the U.S. Navy. If you decide to participate, you are free to withdraw your consent and discontinue your participation at any time without penalty or loss of benefits to which you are otherwise entitled.

Questions About the Study

If you have any questions about the research now, please ask. If you have questions later about the research and/or research-related injuries, you may contact Dr. Terry L. Conway, 9245 Sky Park Court, Suite 120, San Diego, CA 92123, (619) 594-8044.

If you have questions regarding your rights as a human subject and participant in this study, you may call the office of the Committee on Protection of Human Subjects at San Diego State University for information. The telephone number of the Committee is (619) 594-6622. You may also write to the following address:

Committee on Protection of Human Subjects
San Diego State University
5500 Campanile Drive
San Diego, CA 92182-1643

This consent form has been approved by the Committee on Protection of Human Subjects at San Diego State University, as signified by the Committee's stamp. The consent form must be reviewed annually and expires on the date indicated on the stamp.

You are authorized all necessary medical care for injury or illness that might result from participation. Other than medical care that may be provided, there is no other compensation for injury or illness. However, this is not a waiver or release of your legal rights.

Your signature below indicates that you have read the information above and have had a chance to ask any questions you have about the study. You agree to be in the study and have been told that you can change your mind and withdraw your consent to participate at any time. You have been given a copy of this form. You have been told that by signing this consent form you are not giving up any of your legal rights.

Printed Name of Subject

Signature of Subject

Date

Printed Address of Subject

SSN of Subject

Printed Name of Witness

Signature of Witness

Date

Signature of Investigator

Feb. 21, 1996

Date

SMOKING HISTORY

1. Have you smoked 100 cigarettes (5 packs) in your entire life?
☐ No
☐ Yes
2. At what age did you first start smoking fairly regularly?
☐ NA - have never smoked regularly
☐ Under 12 yrs old
☐ 12
☐ 13
☐ 14
☐ 15
☐ 16
☐ 17
☐ 18
☐ 19
☐ 20
☐ 21 yrs old or older
3. When was the last time you smoked a cigarette?
☐ NA - have never smoked
☐ The day I arrived at recruit training
☐ 1-7 days before recruit training
☐ 8-29 days before recruit training
☐ 1-3 months ago
☐ 4-6 months ago
☐ 7-11 months ago
☐ 1-4 years ago
☐ 5 or more years ago
4. Prior to recruit training, did you smoke cigarettes every day or some days?
☐ NA - did not smoke prior to recruit training
☐ Every day
☐ Some days
5. During the 30 days prior to recruit training, how many cigarettes did you smoke on a typical day when you smoked cigarettes?
☐ NA - did not smoke any cigarettes in the last 30 days
☐ Less than 1 cigarette on average
☐ 1-5 cigarettes
☐ 6-10 cigarettes
☐ 11-15 cigarettes
☐ 16-20 cigarettes
☐ 21-25 cigarettes
☐ 26-30 cigarettes
☐ 31-35 cigarettes
☐ 36-40 cigarettes
☐ More than 40 cigarettes
6. During the 30 days prior to recruit training, how soon after waking up would you usually smoke your first cigarette?
☐ NA - did not smoke prior to recruit training
☐ Immediately after waking up
☐ Within 15 minutes after waking up
☐ 15-30 minutes after waking up
☐ 31-60 minutes after waking up
☐ 61 minutes-2 hours after waking up
☐ More than 2 hours after waking up
7. How would you describe yourself prior to recruit training?
☐ Never smoked
☐ Experimented with smoking
☐ Occasional smoker
☐ Daily smoker
☐ Former smoker

QUIT ATTEMPTS

8. Before recruit training, had you ever tried to quit smoking?
☐ NA - have never smoked
☐ No
☐ Yes

9. Before recruit training, when was the last time you tried to quit smoking?
☐ NA - have never smoked
☐ Have never tried to quit
☐ 1-7 days before recruit training
☐ 8-29 days before recruit training
☐ 1-3 months before recruit training
☐ 4-6 months before recruit training
☐ 7-11 months before recruit training
☐ 1-4 years before recruit training
☐ 5 or more years before recruit training
10. Considering the last time you tried to quit smoking during the past 12 months, how long did you stay quit? (Do not count recruit training.)
☐ NA - did not smoke in the past 12 months
☐ Did not try to quit in the past 12 months
☐ Less than 24 hours
☐ 1 day
☐ 2-7 days
☐ 8-29 days
☐ 1-3 months
☐ 4-6 months
☐ 7-11 months
☐ 1 year or more
11. Not counting recruit training, what was the longest time you have ever quit smoking?
☐ NA - have never smoked
☐ Have never tried to quit
☐ Less than 24 hours
☐ 1 day
☐ 2-7 days
☐ 8-29 days
☐ 1-3 months
☐ 4-6 months
☐ 7-11 months
☐ 1 year or more
12. Not counting recruit training, how many times have you tried to quit smoking for one day or longer during the past 12 months?
☐ NA - did not smoke in the past 12 months
☐ Did not try to quit in the past 12 months
☐ Never quit for a whole day
☐ Once
☐ Twice
☐ Three times
☐ Four times
☐ Five or more times

INTENTIONS

13. After you leave recruit training, do you intend to smoke?
☐ Definitely No
☐ Probably No
☐ Probably Yes
☐ Definitely Yes
14. A year from now, do you see yourself as someone who smokes?
☐ Definitely No
☐ Probably No
☐ Probably Yes
☐ Definitely Yes
15. Did you use any other tobacco products in the 30 days prior to recruit training?

| | | |
|-----------------|-----------------------------|------------------------------|
| Pipes | No <input type="radio"/> | Yes <input type="radio"/> |
| Cigars | <input type="radio"/> | <input type="radio"/> |
| Chewing tobacco | <input type="radio"/> | <input type="radio"/> |
| Snuff | <input type="radio"/> | <input type="radio"/> |

THANK YOU FOR YOUR PARTICIPATION!



Appendix B

Graduation Survey

SMOKING HISTORY

1. Have you smoked 100 cigarettes (5 packs) in your entire life?
 - ☐ No
 - ☐ Yes
2. How would you currently describe yourself?
 - ☐ Never smoked
 - ☐ Non-smoker/former smoker
 - ☐ Smoker (even though not allowed to smoke during training)
3. When was the last time you smoked a cigarette?
 - ☐ NA - have never smoked
 - ☐ The day I arrived at recruit training
 - ☐ Today
 - ☐ 1-7 days ago
 - ☐ 8-29 days ago
 - ☐ 1-3 months ago
 - ☐ 4-6 months ago
 - ☐ 7-11 months ago
 - ☐ 1-4 years ago
 - ☐ 5 or more years ago
4. During recruit training, did you experience any withdrawal symptoms from cigarettes?
 - ☐ NA - not a smoker
 - ☐ Not at all
 - ☐ Somewhat
 - ☐ A great deal
 - ☐ Not sure
5. Did you smoke anytime during recruit training (e.g., service week, liberty weekend)?
 - ☐ No
 - ☐ Yes
6. A year from now, do you see yourself as someone who smokes?
 - ☐ Definitely No
 - ☐ Probably No
 - ☐ Probably Yes
 - ☐ Definitely Yes

INTENTIONS

7. After you leave recruit training, do you intend to smoke?
 - ☐ Definitely No
 - ☐ Probably No
 - ☐ Probably Yes
 - ☐ Definitely Yes
8. Has the smoke-free policy at recruit training influenced your intentions to smoke after you graduate?
 - ☐ Has not influenced me one way or another
 - ☐ Has made me want to smoke even more
 - ☐ Has made me want to stay off cigarettes

9. How confident are you that you can go without smoking for 1 year after leaving recruit training?
 - ☐ Not at all confident
 - ☐ Somewhat confident
 - ☐ Confident
 - ☐ Very confident
10. If you think you might smoke after leaving recruit training, how long will you continue smoking?
 - ☐ NA - do not intend to smoke
 - ☐ Will smoke less than 1 month, then quit
 - ☐ Will smoke 1-6 months, then quit
 - ☐ Will smoke 7 or more months, then quit
 - ☐ Will continue smoking with no intention to quit
11. If there were a program for Navy women that provided free telephone counseling to help you quit smoking or stay off cigarettes, would you call?
 - ☐ NA - not a smoker
 - ☐ Definitely No
 - ☐ Probably No
 - ☐ Probably Yes
 - ☐ Definitely Yes

RFC SMOKING POLICY

12. Do you know what the smoking rules are for recruits?
 - ☐ No
 - ☐ Yes
13. Were the smoking rules for recruits enforced during recruit training?
 - ☐ Never
 - ☐ Rarely
 - ☐ Sometimes
 - ☐ Usually
 - ☐ Always
14. How often did recruits "sneak" a cigarette even though they were not supposed to?
 - ☐ Never
 - ☐ Rarely
 - ☐ Sometimes
 - ☐ Frequently
15. During recruit training, how often were you reminded or encouraged NOT to smoke?
 - ☐ Never
 - ☐ Rarely
 - ☐ Sometimes
 - ☐ Frequently
16. Please give the name and location of the command where you are going immediately after leaving recruit training:

Name of Command _____

City _____

State _____

THANK YOU FOR YOUR PARTICIPATION!



Appendix C

SDS Tracking

Processing of SDS Weekly Tracking Files

(Note: * indicates Friday's date of receipt)

1. Each Friday, SDS e-mails SW a list of women recruits receiving orders that week. (Note: e-mail may not arrive until following Monday). The file contains name, SSN, UIC for next command, and short name of next command.
2. SW saves e-mail file as smok*.dat, where * indicates Friday's date of receipt (e.g., smok6-14.dat). When saving, makes sure 'guess paragraphs' is off.
3. Each Monday SW gives KW a copy of smok*.dat on floppy disk, as well as tot*.sav.
4. KW prints hard copy of smok*.dat and writes filename and n on top of hard copy.
5. KW verifies there are only 3 lines per case on hard copy. If not, consults SW.
6. KW uses SPSS syntax file (SDS.SPS) to read in smok*.dat.
7. KW saves as smok*.sav file to floppy disk if it looks okay.
8. KW appends smok*.sav to tot*.sav with "merge add cases" procedure.
9. KW checks for duplicate SSNs: (1) in Syntax, writes: if (SSN EQ LAG (SSN, 1)), DUP=1, (2) in Windows, selects if DUP=1 and then list variables = SSN.
10. For duplicate SSNs, KW uses hard copy to verify which record is most recent, and deletes older one.
11. KW renames tot*.sav to reflect new "as of" date (e.g., tot6-14.sav).
12. KW saves final copies of smok*.sav and tot*.sav to floppy disk and returns disk to SW.
13. SW copies both files to subdirectory OSQ.SDS on her computer for use.



Appendix D

EMR Variables

Variables Extracted from Enlisted Master Record

| Name | | Position |
|-----------|---|----------|
| SSN | Social Security No. Format: A9 | 1 |
| EMRNAME | Name Format: A27 | 3 |
| DOB | Date of Birth Format: F6 | 7 |
| SEX | * No label * Format: A1 | 8 |
| RACE | Race R American Indian M Asian N Black C White X Other Format A1 | 9 |
| ETHNICITY | * No label * Format: A1 | 10 |
| RELIGION | * No label * Format: A2 | 11 |
| RENLISTQ1 | reenlistment quality #1 Format: A1 | 12 |
| DEPNANTS | dependents Format: A1 | 13 |
| RATECODE | ratecode Format: A4 | 14 |
| PAYGRADE | paygrade 7 seaman recruit 6 seaman appretice 5 seaman 4 petty officer third class 3 petty officer second class 2 petty officer first class 1 chief A master chief J senior chief Format: A1 | 15 |
| RATEABB | rate abbrev Format: A5 | 16 |
| TIREDATE | time in rate elig date Format: F6 | 17 |

| | | |
|-----------|---|----|
| PRATECOD | prospective rate code Format: A4 | 18 |
| PPAYGRDE | prospective paygrade Format: A1 | 19 |
| RATEIND | rate indicator' Format: A1 | 20 |
| PRICLASS | primary classification Format: A4 | 21 |
| PRIQDATE | primary qualification date Format: F4 | 22 |
| SECCLASS | secondary classification Format: A4 | 23 |
| SECQDATE | secondary qualification date Format: F4 | 24 |
| PROPAYSK | curr prof pay: pro pay skill Format: A4 | 25 |
| AWARDLEV | curr prof pay: award level Format: A1 | 26 |
| AUTHCODE | curr prof pay: author code Format: A1 | 27 |
| EFFDATE | current prof pay effective date Format: F6 | 28 |
| RENLISTQ2 | reenlistment quality #2 Format: A2 | 29 |
| ADSD | active duty service date Format: F6 | 30 |
| PEBD | pay entry base date Format: A6 | 31 |
| INVOLTYP | involuntary extensions: type Format: A2 | 32 |
| INVOLIND | involuntary extensions: indicator Format: A1 | 33 |
| EAOSIND | eaosind Format: A1 | 34 |
| ADVMTSUS | advmt susp Format: A1 | 35 |
| EDUC | education Format: A2 | 36 |
| OBPUIC | onboard act parent uic Format: A5 | 37 |

| | | |
|----------|---|----|
| OBAUIC | onboard act actual uic Format: A5 | 38 |
| OBDTRECD | onboard act date received Format: F6 | 39 |
| OBPRD | onboard act projected rotation date Format: A4 | 40 |
| OBPRR | onboard act projected rotation reason Format: A4 | 41 |
| PPUIC | past act parent uic Format: A5 | 42 |
| PAUIC | past act actual uic Format: A5 | 43 |
| PDTRECD | past act date received Format: F6 | 44 |
| PPRD | past act proj rotation date Format: F4 | 45 |
| PDTTRANS | past act date transferred Format: F6 | 46 |
| SLDATE | strength loss date of occur Format: F6 | 47 |
| SLNESTC | strength loss nes transaction code Format: A3 | 48 |
| SLDODCDE | strength loss dod loss code Format: A3 | 49 |
| CREERINT | career intentions Format: A1 | 50 |
| MARSTAT | marital status Format: A1 | 51 |
| WIFELOC | wife location Format: A3 | 52 |
| CHLD1M | male children < 5 Format: F1 | 53 |
| CHLD1F | female children < 5 Format: F1 | 54 |
| CHLD2M | male children 5-11 Format: F1 | 55 |
| CHLD2F | female children 5-11 Format: F1 | 56 |
| CHLD3M | male children > 11 Format: F1 | 57 |

| | | |
|----------|--|----|
| CHLD3F | female children > 11 Format: F1 | 58 |
| SECDEPS1 | # second dependents Format: F1 | 59 |
| DEPLOYDT | deployment date Format: F4 | 60 |
| DEPLENG | deployment length Format: A2 | 61 |
| DEPLOC | deployment location Format: A4 | 62 |
| BORDPUIC | basic orders parent uic Format: A5 | 63 |
| BORDAUC | basic orders actual uic Format: A5 | 64 |
| BORDASSR | basic orders assign reason Format: A3 | 65 |
| GPUIC | gain activity parent uic Format: A5 | 66 |
| GAAUC | gain activity actual uic Format: A5 | 67 |
| GARCODE | gain activity assigned rate code Format: A4 | 68 |
| GESTARRD | gain activity est arrival date Format: F6 | 69 |
| GPRD | gain activity proj rotation date Format: F4 | 70 |
| ESTLOSSD | est loss date Format: F6 | 71 |
| ESTLOSSR | est loss reason Format: A3 | 72 |
| TYPEDIS | type discharge Format: A1 | 73 |
| WHEIGHT | waivers: height Format: A1 | 74 |
| WWEIGHT | waivers: weight Format: A1 | 75 |
| LAT_E_A | lost adjustment time: eaos/adsd Format: F4 | 76 |
| LATPEBD | lost adjustment time pebd Format: F4 | 77 |

| | | |
|----------|--|----|
| LSTDISD | last discharge date Format: F6 | 78 |
| FLAG | * No label * Format: A1 | 79 |
| HEIGHT | current height Format: F2 | 80 |
| WEIGHT | current weight Format: F3 | 81 |
| SRBZDID | sel reenlist bonus zone id Format: A1 | 82 |
| SRBZDEDT | sel reenlist bonus zone effective date Format: F4 | 83 |
| COMMTURB | command turbulence Format: A1 | 84 |
| CEDPAY | ced paygrade Format: A1 | 85 |
| CEDREP1 | curr eval report occasion 1 Format: A1 | 86 |
| CEDREP2 | curr eval report occasion 2 Format: A1 | 87 |
| EVALSTRT | evaluation start date Format: F6 | 88 |
| EVALCLOS | evaluation closing date Format: F6 | 89 |
| REPTYPE | curr eval report type Format: A1 | 90 |
| BODYFAT | percent body fat Format: F3 | 91 |
| MILKNOW | eval grades: mil knowledge Format: A1 | 92 |
| PROFKNOW | eval grades: prof knowledge Format: A1 | 93 |
| INITIAT | eval grades: initiation Format: A1 | 94 |
| RELIABLE | eval grades: reliable Format: A1 | 95 |
| MILBEAR | eval grades: mil bearing Format: A1 | 96 |
| BEHAVIOR | eval grades: behavior Format: A1 | 97 |

| | | |
|----------|--|-----|
| HUMRELS | 305 'eval grades: human rels' speaking 'eval grades: speakin Format: A1 | 98 |
| SPEAKING | * No label * Format: A1 | 99 |
| WRITING | eval grades: writing Format: A1 | 100 |
| DIRECT | eval grades: direct Format: A1 | 101 |
| COUNSEL | eval grades: counsel Format: A1 | 102 |
| MGMT | eval grades: management Format: A1 | 103 |
| OAGRADE | overall grade Format: A1 | 104 |
| OARANK | overall rank Format: A3 | 105 |
| OA HIST1 | overall history 1 Format: A1 | 106 |
| OA HIST2 | overall history 2 Format: A1 | 107 |
| OA HIST3 | overall history 3 Format: A1 | 108 |
| OA HIST4 | overall history 4 Format: A1 | 109 |
| OA HIST5 | overall history 5 Format: A1 | 110 |
| ADVREC | advancement recommendation Format: A1 | 111 |
| SECDEPS2 | secondary dependents Format: F1 | 112 |
| EADOSOFT | exp of active duty oblig soft Format: A6 | 113 |
| RRIND | regular/reserve indicator Format: A2 | 114 |
| EADOHARD | exp of active duty oblig hard Format: A6 | 115 |
| TYPENLST | type of enlistment Format: A2 | 116 |
| ENLSTERM | enlistment term Format: A1 | 117 |

| | | |
|----------|---|-----|
| ENLSTNUM | enlistment numb Format: A1 | 118 |
| MILOBDES | military obligated designator Format: A1 | 119 |
| RESEXP | exp of reserve enlistment Format: F6 | 120 |
| EDUCCERT | education certificates Format: A1 | 121 |
| EDUCSOC | education society Format: A1 | 122 |
| EDUCMAJ | education major Format: A2 | 123 |
| EDUCSPEC | education specialization Format: A2 | 124 |
| TESTID | mental aptitude test id Format: A2 | 125 |
| MAT1 | mental apt test 1 Format: A2 | 126 |
| MAT2 | mental apt test 2 Format: A2 | 127 |
| MAT3 | mental apt test 3 Format: A2 | 128 |
| MAT4 | mental apt test 4 Format: A2 | 129 |
| MAT5 | mental apt test 5 Format: A2 | 130 |
| MAT6 | mental apt test 6 Format: A2 | 131 |
| MAT7 | mental apt test 7 Format: A2 | 132 |
| MAT8 | mental apt test 8 Format: A2 | 133 |
| MAT9 | mental apt test 9 Format: A2 | 134 |
| MAT10 | mental apt test 10 Format: A2 | 135 |
| MAT11 | mental apt test 11 Format: A2 | 136 |
| MAT12 | mental apt test 12 Format: A2 | 137 |

| | | |
|---------|---------------------------------------|-----|
| MAT13 | mental apt test 13 Format: A2 | 138 |
| MAT14 | mental apt test 14 Format: A2 | 139 |
| MAT15 | mental apt test 15 Format: A2 | 140 |
| CICOM | ci com Format: A2 | 141 |
| NFQTEST | nuclear field qual test Format: A2 | 142 |
| AFQTEST | armed forces qual test Format: A2 | 143 |



Appendix E

Intervention Modules

To Smoke or Not To Smoke?

Tips for Being a Nonsmoker

Delay: Look at your watch & wait 2 or 3 minutes. The urge to smoke will fade or go away.

Deep Breathing: Breathe in slowly & deeply. Hold your breath & count to 5.

Drink Water: Water helps satisfy the need to put something in your mouth & it's good for you. Jazz it up with a lemon or orange slice & use a straw.

Distraction: Whatever you are doing when the urge to smoke strikes you, immediately do something else! Call a friend, stand up if you were sitting, chew a piece of gum.

Watch Out! One of the biggest dangers you face is alcohol. Drinking and smoking seem to go hand in hand for many people. If you do drink, be prepared for cigarette cravings. Decide in advance how you will handle these cravings. Tell the people you are with that you don't want to smoke; keep pretzels, popcorn, toothpicks or straws handy to give your hands something to do.



**TIP: SQUEEZE YOUR
STRESS GRIP!**

OPERATION STAY QUIT

Ship Shape

As a woman in the Navy, staying in shape is particularly important to you. Many women are afraid they will gain weight once they quit smoking. Some people do gain a few pounds because their metabolism slows down to a more normal pace, but any weight gain is often just temporary. Look below for hints on how to stay fit & smoke free!

Hints for Staying Fit:

- Snack on pretzels instead of potato chips
- Read labels to find low-fat & non-fat food
- Drink lots of water
- Spend an extra 10 minutes in the gym
- Go for a walk



***TIP: KEEP SUGAR-FREE
GUM HANDY TO SATISFY
THOSE CRAVINGS!***

What's In It For You?

Benefits of Not Smoking

*Smoke 1 pack a week?
In 1 month you could buy...*

- 3 deli sandwiches
- or
- 4 lunches at McDonalds
- or
- 4 People magazines
- or
- 8 video rentals

*Smoke 1 pack a day?
In 1 month you could buy...*


- 7 pizzas
- or
- 8 movie tickets
- or
- 15 long distance phone calls
- or
- jeans & a t-shirt

**TIP: CALCULATE HOW
MUCH EXTRA MONEY
YOU HAVE TO SPEND
WHEN YOU DON'T BUY
CIGARETTES!**


OPERATION STAY QUIT

It Takes Time...


Quitting cigarettes for good is a process that takes time. It took a while to become a smoker, so it makes sense that it can take a while to become a nonsmoker. If negative thoughts creep in, use the “3 Rs” to keep you on track:



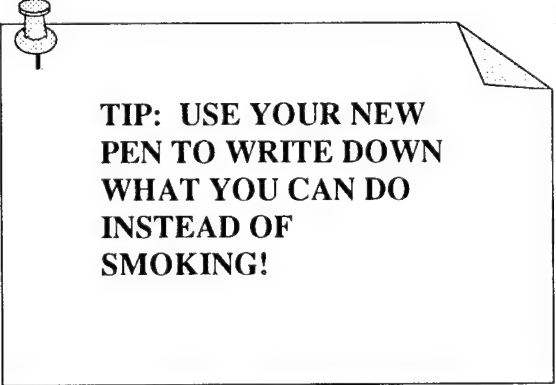
REMIND
yourself of why you
are quitting.



REHEARSE
difficult situations
before they
happen.



REFUSE
to let negative
thoughts take
control.



**TIP: USE YOUR NEW
PEN TO WRITE DOWN
WHAT YOU CAN DO
INSTEAD OF
SMOKING!**

OPERATION STAY QUIT

Need Help?

The support of your family, friends & co-workers is a big help when you're trying not to smoke. Let others know HOW to help you. Be specific - try out some of the ideas below.

Tell others what you might want to do instead of smoking so they know what to suggest when you need a boost.

Remind others to be positive!
A friend can help by saying,
"You've had a tough week & it's great that you haven't smoked. Let's go to the gym to get rid of some of your stress."

Rehearse difficult situations with a friend so you can be prepared for when you might feel tempted.




TIP: USE YOUR ADDRESS BOOK TO KEEP A FRIEND'S PHONE NUMBER HANDY!

OPERATION STAY QUIT

CONGRATULATIONS! YOU ARE A NONSMOKER!

If you have made it this long without smoking, you are well on your way to being a nonsmoker for life. Even if you've slipped, you've learned valuable lessons about how to stay away from tempting situations. You may still face some difficult moments, so be on the look out! When faced with an unexpected problem or situation, remind yourself that smoking won't solve your problem. Think of the different ways you've handled stress or boredom in the past and use them!



**TIP: LOOK IN YOUR MIRROR.
YOU HAVE CHANGED THE WAY
YOU THINK ABOUT YOURSELF.
YOU'RE LOOKING AT A
NONSMOKER NOW!**

OPERATION STAY QUIT

Still Smoking?

"I feel sick when I don't smoke..."

You aren't sick, but you are experiencing withdrawal symptoms. Those symptoms will pass within a week or two.

"I'll just smoke less, or switch to low tar cigarettes..."

Sorry, doesn't work. You'll either smoke more to get the nicotine, or creep back up to your old level of smoking.

"I'll gain weight if I quit smoking..."

Possibly, but often post-quitting weight gain is temporary. Increasing your physical activity and snacking on low-fat foods will keep you fit.

Do these sound familiar? Read on...

"Quitting is just too hard..."

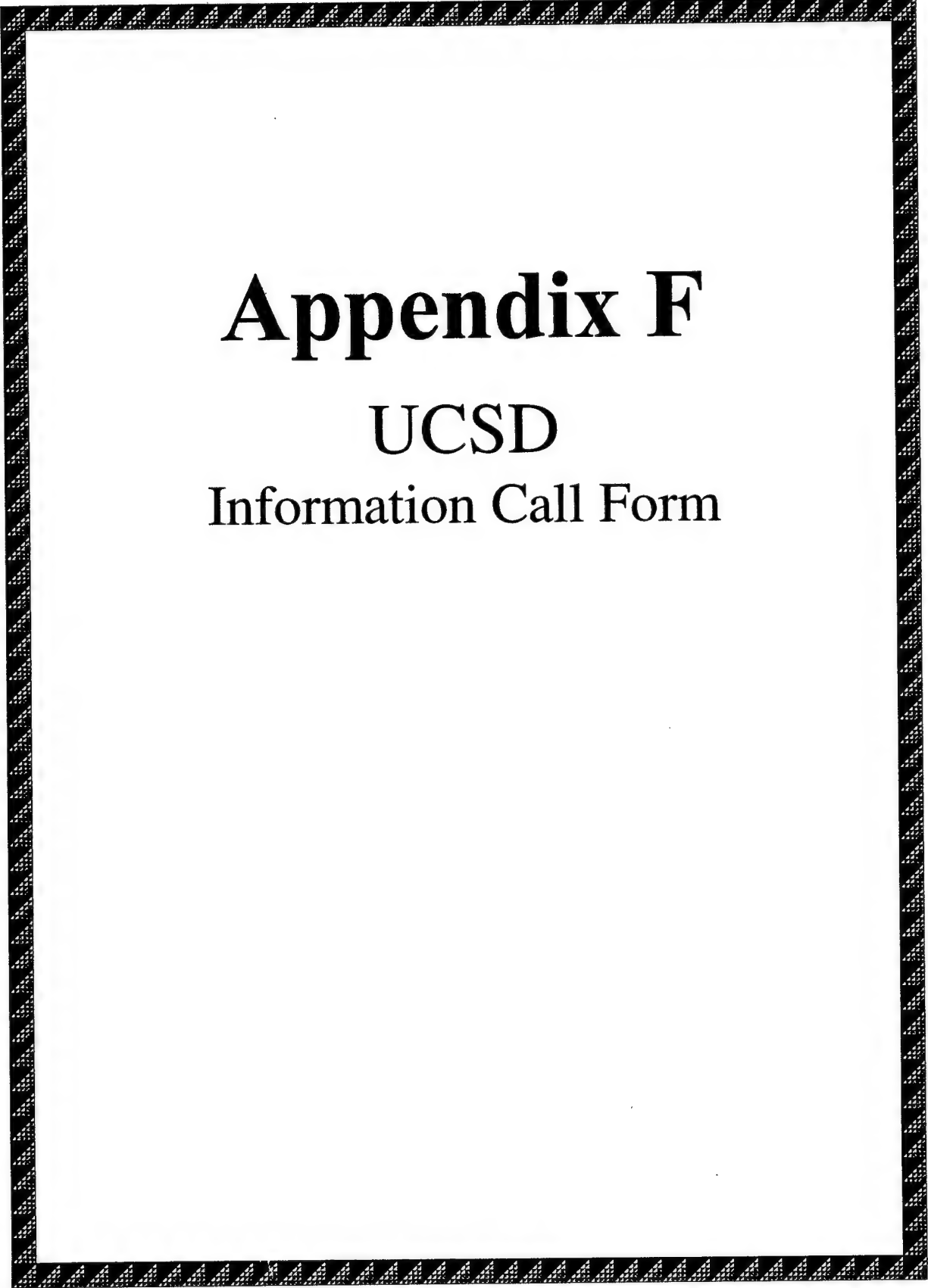
Quitting can be hard, but over 40 million Americans have quit, including 13 million heavy smokers. Some people quit on their first try and others have to try several times. Just a few weeks after quitting your lungs work 30% better. Within a year your risk of smoking-related disease is cut in half.

It's never too late - do it now!



**TIP: LOOK IN YOUR MIRROR
AND PICTURE A
NONSMOKER!**

OPERATION STAY QUIT



Appendix F

UCSD

Information Call Form

Navy Info Call

Client _____
Counselor _____

Date ____ / ____ / ____ Time ____
Length of conversation _____

If client
refuses
mark **R**

Question
asked, but
answer is
indiscernible
mark **Z**

S1. PRELIMINARIES

1. Is this the first time you've talked with our program? ☐ Yes ☐ No...*(use message form)*

2. May I have your name please? _____

3. How old are you? []

4. Where are you currently stationed? _____

5. How did you hear about our program?

☐ Boot camp presentation

☐ Mail/post card

☐ Friend/Co-worker

☐ Other _____

6. What prompted you to call us today? _____

7. *Verify that client wants to quit soon and is interested in counseling*

8. This service is part of a research project being conducted to better understand tobacco use among women in the Navy. To begin, I will need to ask you a few questions about you and your smoking history, and I will be writing down some information as we talk, to get a complete picture of your smoking situation. What we discuss during the call will be kept confidential; however, as you may recall from when you first agreed to participate in the study, complete confidentiality cannot be promised to military personnel. Also if there were a clear danger to yourself or someone else, that information may be required to be reported to appropriate medical or command authorities. Additionally, a counseling supervisor may listen in on a call, to ensure the continued quality of our service. Is this OK with you?

☐ Yes

☐ No (terminate call)

S2. SMOKING STATUS AND SELF-EFFICACY

1. Have you smoked in the last 24 hours?

☐ Yes

☐ No.....*Go to Already Quit form*

2. How many cigarettes do you smoke now?

Number/day: []

Days/week: []

3. How soon after you wake up do you usually smoke your first cigarette?

1. "Immediately"

4. 31-60 minutes

2. < 15 minutes

5. 61 minutes-2 hours

3. 15-30 minutes

6. > 2 hours

4. Are you planning to quit within the next 30 days?

☐ Yes

☐ No

5. If you were to quit right now, how confident are you that you could go without smoking for **one month**?

1. VERY CONFIDENT

3. SOMEWHAT CONFIDENT

2. CONFIDENT

4. NOT CONFIDENT

6. *Beware of demand characteristics:* How confident are you that you could go without smoking for **one week**?

1. Very confident

3. Somewhat confident

2. Confident

4. Not confident

S3. QUITTING HISTORY

1. How old were you when you started smoking regularly?

Years old.....[] ☐ Never smoked regularly

2. In the past 12 months, how many times have you **tried** to quit and made it for at least 24 hours?

Number of times []
 Don't remember, at least - []
 Number of unintended quits []

3. What about the past five years? (total - includes Q3)

Number of times []
 Don't remember, at least []
 Number of unintended quits []

4. When was the last time you quit (for at least 24 hours):

Date _____

Length _____

5. Tell me about the **situation** when you started smoking again.

Situation Codes

- | | |
|-------------------------------|----------------------------|
| 1. Alcohol with other smokers | 6. Routine |
| 2. Alcohol | 7. Withdrawal symptoms |
| 3. Major life event | 8. Everyday emotion |
| 4. Deliberate utility | 9. Restlessness |
| 5. Other smokers | 10. Other |
| | 11. Never intended to quit |

6. Where did you get the cigarette?

- ☐ Bought a pack
☐ Bought one or a few
☐ Old cigarette pack

- ☐ Someone offered one
☐ Asked or took from someone
☐ Other

7. What's the longest period of time you've gone without smoking:

☐ Same attempt as Q5.....*Go to Q11*

Length _____

☐ *Code only: Longest quit was during boot camp*

8. When was that?

Month _____ Year _____

9. What was the situation that time?

Situation Codes

- | | |
|-------------------------------|----------------------------|
| 1. Alcohol with other smokers | 6. Routine |
| 2. Alcohol | 7. Withdrawal symptoms |
| 3. Major life event | 8. Everyday emotion |
| 4. Deliberate utility | 9. Restlessness |
| 5. Other smokers | 10. Other |
| | 11. Never intended to quit |

10. *Ask about quit during boot camp:* When you quit during basic training, did you feel like you were a nonsmoker?

☐ Yes

☐ Somewhat

☐ No

11. *If longest quit (other than boot camp) is at least 1 week:*

You've had some success in quitting smoking; what do you attribute your success to?

Attribution Codes

1. Quitting aid
2. Behavioral method
3. Other's influence
4. Cognition/Emotion
5. Situational
6. Other

12. What methods have you used to help you quit smoking, such as ... ?

- ☐ HYPNOSIS
☐ FILTERS/HOLDERS
☐ CUTTING DOWN
☐ COLD TURKEY
☐ Program/course - paid
☐ Program/course - free
☐ Telephone counseling
☐ Acupuncture
☐ Therapy

- ☐ Low tar cigarettes
☐ Nicotine gum
☐ Nicotine patch
☐ Other Rx product
☐ Other non-Rx product
☐ Other tobacco products
☐ With others
☐ Other methods _____

13. Have you used nicotine gum or the patch?

Gum Yes/No # of days [] (most recent)
 Patch Yes/No # of days [] (most recent)

If using currently:

Gum Start date: _____ # per day: _____

Patch Start date: _____ Dosage: _____ mg. Brand: _____

14. Ask whether client plans to use gum or patch.

Notes: _____

S4. REASONS TO QUIT SMOKING

1. Was there a recent event that triggered your decision to quit now? (What was it?)

☐ None

Event Codes

1. Negative health event
2. Pregnancy/nursing
3. Doctor's advice
4. Lifestyle change
5. Soc. influence/others' benefit
6. Other

2. What are your main reasons to quit smoking?

1. _____

2. _____

3. _____

*Verify and * client's most compelling reason*

**Reason
Codes**

1. Health

2. Social

3. Cost

4. Other

3. What do you like least about smoking? _____

4. What do you like most about smoking? _____

S5. SOCIAL SUPPORT

1. Do you live with anyone who smokes?

☐ Yes

☐ No.....Go to 3

2. Are they going to quit with you?

☐ Yes

☐ No

☐ Maybe

☐ Some are, some are not

3. Are you currently in any other self-improvement program, or is there any place where you receive support?

☐ Yes _____

☐ No

4. When you quit, who's going to be a source of support for you? . . . Anyone else?

Check all that apply

- ☐ Spouse/Significant other
- ☐ Other family member
- ☐ Friend/Co-worker
- ☐ Helpline
- ☐ Support group
- ☐ Commanding Officer(CO)

- ☐ Other counselor
- ☐ Spiritual source
- ☐ Myself
- ☐ No one/Don't know
- ☐ Other _____
- ☐ Executive Officer(XO)

S6. SOCIAL INFLUENCE

1. Would you say you are more often around smokers or nonsmokers?

- ☐ Smokers
- ☐ Nonsmokers
- ☐ Equal-smokers/nonsmokers

2. When/where do you usually smoke the most?

- | | |
|--|--|
| <input type="checkbox"/> At work/class | <input type="checkbox"/> At home/dorm |
| <input type="checkbox"/> With friends | <input type="checkbox"/> When relaxing |
| <input type="checkbox"/> When stressed | <input type="checkbox"/> When bored |
| <input type="checkbox"/> On weekends | <input type="checkbox"/> Other _____ |

3. Have you ever felt uncomfortable smoking in a public place?

- ☐ Yes ☐ No

4. Aside from boot camp, have you ever felt pressure to quit from within the Navy?

- ☐ Yes ☐ No

S7. HEALTH

1. Has a health professional ever advised you to quit smoking?

☐ Yes.....*Go to 1a*

☐ No

1a. When was the last time?

[]

Number

[] ago

Unit = Days Weeks Months Years

2. Do you have ...?

☐ A CHRONIC COUGH

☐ Neither

☐ BREATHING PROBLEMS

3. Do you have any other physical problems that you believe could be caused by your smoking?

☐ None

4. Are you taking any medications?

☐ Yes: _____

☐ No

5. *Record only: Other health problems mentioned during the call.*

☐ None

Preface questions 6-7 with health risk information and if appropriate, review health and pregnancy risks.

6. *If female under 45:* Do you think there is a chance you might be pregnant?

☐ Yes

☐ Inappropriate

☐ No

7. *If female under 45:* Are you using birth control pills or hormones?

☐ Yes

☐ Inappropriate

☐ No

8. Are you concerned about gaining weight after you quit?

☐Yes

☐No

9. Are you able to find time to exercise?

☐Yes..... *Go to 9a*

☐No

☐Have time, but don't exercise

☐Physically unable

☐Unintentionally active (e.g. job, has young children)

9a. How often: _____ Days/Week

10. Do you think that smoking has had any effect on your PRT performance since graduating from basic training?

☐Yes - Better

☐Yes - Worse

☐No Effect

S8. OTHER REASONS

1. Are you concerned that cigarettes control your life too much?

☐Yes

☐Somewhat

☐No

2. Do you feel that smoking is compatible or incompatible with your lifestyle at this point?

☐Compatible

☐Incompatible

☐Both

| LTR LBL | SITUATION | COPING STRATEGY | CAME UP?/FOLLOW UP NEXT CALL? | | | | | |
|------------|-----------|-----------------|-------------------------------|--|--|--|--|--|
| | | | | | | | | |
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* CLIENT'S MOST DIFFICULT SITUATION IN FOLLOW UP COLUMN
CIRCLE LETTER LABELS OF SITUATIONS SUGGESTED BY COUNSELOR



Appendix G

3-Month Survey

OPERATION STAY QUIT FOLLOW-UP SURVEY

Dear Participant:

As you may recall, you and several hundred other new members of the U.S. Navy were selected to participate in an ongoing study of tobacco use conducted by San Diego State University, Naval Health Research Center, and the University of California, San Diego. Your participation is very important because the information you provide will help guide future smoking programs for Navy personnel.

We hope you will continue to participate by completing this short survey. This survey only takes about 5 minutes to complete. In addition, if you return the completed survey right away, we will enter your name into a monthly lottery to win \$100. We plan to publish the names of the lottery winners.*

*If you do NOT want your name published if you win, please fill in this bubble. ☐

Please answer all the questions honestly and to the best of your ability. Your responses are for research use only and will be kept confidential. Data will be reported so that no individual participant can be identified. If you have any questions about this survey, please contact Dr. Terry L. Conway, San Diego State University, Graduate School of Public Health, 9245 Sky Park Court, Suite 120, San Diego, CA 92123/Phone: (619) 594-8044.

Thank you for your cooperation in this project!

Privacy Act Statement

(1) Authority: Authority to request information is granted under Title 5 USC 301, Department of the Navy Regulations, and Executive Order 9396. License to administer this survey is granted under OPNAV Report Control Symbol 6100-11 which expires 30 June 1998. Personal identifiers will be used to conduct follow-on research. In addition, standard Navy personnel records may be accessed. (2) Purpose: The purpose of this survey is to collect data about tobacco use among new Navy members. (3) Routine Use(s): Information provided in this survey will be analyzed by San Diego State University. The data files will be maintained by San Diego State University and the Navy Personnel Survey System at the Navy Personnel Research and Development Center, where they will be used for determining changing trends in the Navy. (4) Anonymity: All responses will be held in confidence by San Diego State University. Information you provide will be considered only when statistically summarized with the responses of others and will not be attributable to any single individual. (5) Participation: Completion of this survey is entirely voluntary. Failure to respond to any of the questions will NOT result in any penalties except lack of representation of your views in the final results and outcomes.

IMPORTANT INSTRUCTIONS

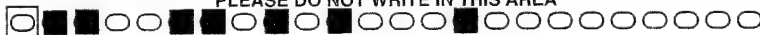
- * USE NO. 2 PENCIL ONLY.
- * Do NOT use ink, ballpoint, or felt tip pens.
- * Erase cleanly and completely any changes you make.
- * Make black marks that fill the circle.
- * Do NOT make any stray marks on the form.

WHEN APPLICABLE:

- * Write the numbers in the boxes at the top of the block.
- * Fill in the corresponding circles below.

Please answer ALL questions. Mark NA if not applicable to you. Provide only one answer for each question.

PLEASE DO NOT WRITE IN THIS AREA



17766

ABOUT YOU . . .

Name: _____

Last First M.I.

Today's date:

| DATE | | | | | |
|------|---|-----|---|-----|---|
| MO. | | DAY | | YR. | |
| 0 | 0 | 0 | 0 | 0 | 0 |
| 1 | 1 | 1 | 1 | 1 | 1 |
| | 2 | 2 | 2 | 2 | 2 |
| | 3 | 3 | 3 | 3 | 3 |
| | 4 | 4 | 4 | 4 | 4 |
| | 5 | 5 | 5 | 5 | 5 |
| | 6 | 6 | 6 | 6 | 6 |
| | 7 | 7 | 7 | 7 | 7 |
| | 8 | 8 | 8 | 8 | 8 |
| | 9 | 9 | 9 | 9 | 9 |

SMOKING HISTORY

- ☐ No
☐ Yes

- ☐ No
☐ Yes

- ☐ NA - do not smoke
☐ Every day
☐ Some days

- ☐ Experimented with smoking
☐ Occasional smoker
☐ Daily smoker
☐ Former smoker

- ☐ Today
- ☐ 1-7 days ago
- ☐ 8-29 days ago
- ☐ 1-3 months ago
- ☐ 4-6 months ago
- ☐ 7-11 months ago
- ☐ 1-4 years ago
- ☐ 5 or more years ago

- ☐ NA - did not smoke any cigarettes in the last 30 days
- ☐ Less than 1 cigarette, on average
- ☐ 1-5 cigarettes
- ☐ 6-10 cigarettes
- ☐ 11-15 cigarettes
- ☐ 16-20 cigarettes
- ☐ 21-25 cigarettes
- ☐ 26-30 cigarettes
- ☐ 31-35 cigarettes
- ☐ 36-40 cigarettes
- ☐ More than 40 cigarettes

- ☐ NA - did not smoke in the last 30 days
- ☐ Immediately after waking up
- ☐ Within 15 minutes after waking up
- ☐ 15-30 minutes after waking up
- ☐ 31-60 minutes after waking up
- ☐ 61 minutes-2 hours after waking up
- ☐ More than 2 hours after waking up

- ☐ NA - did not smoke after recruit training
- ☐ Immediately or the same day
- ☐ 1-7 days after
- ☐ 8-29 days after
- ☐ 1-3 months after
- ☐ 4-6 months after
- ☐ 7-11 months after
- ☐ About 1 year after

- 9. How often do you smoke in these situations?**

- a. Workdays
- b. Days off from work
- c. Alone
- d. With other people
- e. At home
- f. Before work or school
- g. Work or school breaks
- h. After work or school
- i. In clubs or bars
- j. At parties

[illegible]

QUIT ATTEMPTS

10. *Since graduating from recruit training, have you tried to quit smoking?*

- ☐ NA - have not smoked since graduating from recruit training
- ☐ No
- ☐ Yes

11. **Since graduating from recruit training, how many times have you tried to quit smoking for one day or longer?**

- ☐ NA - have not smoked since graduating from recruit training
- ☐ Did not try to quit since graduating from recruit training
- ☐ Never for a whole day since graduating from recruit training
- ☐ Once
- ☐ Twice
- ☐ Three times
- ☐ Four times
- ☐ Five or more times

- 12. Since graduating from recruit training, when was the last time you tried to quit smoking?**

- ☐ NA - have not smoked since graduating from recruit training
- ☐ Did not try to quit since graduating from recruit training
- ☐ Today
- ☐ 1-7 days ago
- ☐ 8-29 days ago
- ☐ 1-3 months ago
- ☐ 4-6 months ago
- ☐ 7-11 months ago
- ☐ About 1 year ago

13. Considering the last time you tried to quit smoking *since graduating from recruit training*, how long did you stay quit?

- ☐ NA - have not smoked since graduating from recruit training
- ☐ Did not try to quit since graduating from recruit training
- ☐ Less than 24 hours
- ☐ 1 day
- ☐ 2-7 days
- ☐ 8-29 days
- ☐ 1-3 months
- ☐ 4-6 months
- ☐ 7-11 months
- ☐ About 1 year

IF YOU HAVE NOT SMOKED SINCE GRADUATING FROM RECRUIT TRAINING, PLEASE FILL IN THIS BUBBLE ☐ AND SKIP TO QUESTION 15.

14. Below is a list of reasons people give for starting to smoke again. For each reason, fill in the appropriate bubble. No or Yes, to indicate whether it was a reason why you went back to smoking after you graduated from recruit training.

- a. To fit in with the group
- b. To help me relax
- c. To keep my weight down
- d. To show that I'm cool
- e. To show that I'm tough
- f. To look and feel like an adult
- g. To help me when I'm bored
- h. To help me concentrate
- i. To satisfy a craving
- j. To help me handle stress
- k. To help me meet people
- l. To take more work breaks
- m. To take a dare
- n. For the taste
- o. For the enjoyment of it
- p. Because most of my friends smoke
- q. Because I enjoy smoking when drinking

[illegible]

INTENTIONS

15. Which one of the following describes your intentions to quit smoking?

- ☐ NA - have not smoked since graduating from recruit training
- ☐ NA - I quit smoking after leaving recruit training
- ☐ I intend to quit in the next 30 days
- ☐ I intend to quit in the next 2-6 months
- ☐ I do not intend to quit smoking anytime soon

- 16. If you've quit smoking or intend to quit in the near future, how confident are you that you can go without smoking for 1 year?**

- ☐ NA - do not intend to quit
- ☐ Not at all confident
- ☐ Somewhat confident
- ☐ Confident
- ☐ Very confident

- 17. A year from now, do you see yourself as someone who smokes?**

- ☐ Definitely No
☐ Probably No
☐ Probably Yes
☐ Definitely Yes

18. How many of the people you know smoke?

- a. Family members
- b. Friends back home
- c. Friends in the Navy
- d. Supervisors/instructors
- e. Coworkers/shipmates

| None | Some | Most |
|-----------------------|-----------------------|-----------------------|
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

19. Does your spouse/significant other smoke?

- ☐ NA
- ☐ No
- ☐ Yes

COMMAND SMOKING POLICY

20. Do you know what the specific rules are for smoking at your current command?

- ☐ No
- ☐ Yes

21. How do you think the smoking policy at your current command has influenced your smoking?

- ☐ Has not influenced me one way or another
- ☐ Has made me want to smoke even more
- ☐ Has made me want to stay off cigarettes

22. How often are the smoking rules enforced at your current command?

- ☐ Never
- ☐ Rarely
- ☐ Sometimes
- ☐ Usually
- ☐ Always

OTHER

23. Did you use any other tobacco products in the last 30 days?

- a. Pipes
- b. Cigars
- c. Chewing tobacco
- d. Snuff

| No | Yes |
|-----------------------|-----------------------|
| <input type="radio"/> | <input type="radio"/> |
| <input type="radio"/> | <input type="radio"/> |
| <input type="radio"/> | <input type="radio"/> |
| <input type="radio"/> | <input type="radio"/> |
| <input type="radio"/> | <input type="radio"/> |

24. *Since graduating from recruit training, have you...*

- a. seen quit-smoking materials at your command?
- b. received quit-smoking materials in the mail?
- c. talked to someone at a smokers' helpline?

| No | Yes |
|-----------------------|-----------------------|
| <input type="radio"/> | <input type="radio"/> |
| <input type="radio"/> | <input type="radio"/> |
| <input type="radio"/> | <input type="radio"/> |
| <input type="radio"/> | <input type="radio"/> |
| <input type="radio"/> | <input type="radio"/> |

25. To help us keep in contact with you, please provide the names and locations of your current and next duty stations/commands:

Name of Current Command _____ City _____ State _____

Name of Next Command _____ City _____ State _____

THANK YOU FOR PARTICIPATING IN THIS SURVEY!

\$ Please mail the survey right away in the postage-paid envelope for a chance to win \$100!! \$



Appendix H

6-Month Survey

OPERATION STAY QUIT FOLLOW-UP SURVEY

Dear Participant:

As you may recall, you and several hundred other new members of the U.S. Navy were selected to participate in an ongoing study of tobacco use conducted by San Diego State University, Naval Health Research Center, and the University of California, San Diego. Your participation is very important because the information you provide will help guide future smoking programs for Navy personnel.

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*If you do NOT want your name published if you win, please fill in this bubble. ☐

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IMPORTANT INSTRUCTIONS

- * USE NO. 2 PENCIL ONLY.
- * Do NOT use ink, ballpoint, or felt tip pens.
- * Erase cleanly and completely any changes you make.
- * Make black marks that fill the circle.
- * Do NOT make any stray marks on the form.

WHEN APPLICABLE:

- * Write the numbers in the boxes at the top of the block.
- * Fill in the corresponding circles below.

Please answer ALL questions. Mark NA if not applicable to you. Provide only one answer for each question.

PLEASE DO NOT WRITE IN THIS AREA



24411

Name: _____
Last First M.I.

Last

First

M.I.

Social Security Number:

[illegible]

Today's date:

| DATE | | | | | |
|------|---|-----|---|-----|---|
| MO. | | DAY | | YR. | |
| 0 | 0 | 0 | 0 | 0 | 0 |
| 1 | 1 | 1 | 1 | 1 | 1 |
| 2 | 2 | 2 | 2 | 2 | 2 |
| 3 | 3 | 3 | 3 | 3 | 3 |
| 4 | 4 | 4 | 4 | 4 | 4 |
| 5 | 5 | 5 | 5 | 5 | 5 |
| 6 | 6 | 6 | 6 | 6 | 6 |
| 7 | 7 | 7 | 7 | 7 | 7 |
| 8 | 8 | 8 | 8 | 8 | 8 |
| 9 | 9 | 9 | 9 | 9 | 9 |

SMOKING HISTORY

1. Have you smoked 100 cigarettes (5 packs) in your entire life?

☐ No
☐ Yes

2. Do you currently smoke?

☐ No
☐ Yes

3. Do you smoke cigarettes every day or some days?

☐ NA - do not smoke

☐ Every day

☐ Some days

4. How would you currently describe yourself?

- ☐ Experimented with smoking
- ☐ Occasional smoker
- ☐ Daily smoker
- ☐ Former smoker

5. When was the last time you smoked a cigarette?

☐ Today

☐ 1-7 days ago

☐ 8-29 days ago

☐ 1-3 months ago

☐ 4-6 months ago

☐ 7-11 months ago

☐ 1-4 years ago

☐ 5 or more years ago

6. During the last 30 days, how many cigarettes did you smoke on a typical day when you smoked cigarettes?

- ☐ NA - did not smoke any cigarettes in the last 30 days
- ☐ Less than 1 cigarette, on average
- ☐ 1-5 cigarettes
- ☐ 6-10 cigarettes
- ☐ 11-15 cigarettes
- ☐ 16-20 cigarettes
- ☐ 21-25 cigarettes
- ☐ 26-30 cigarettes
- ☐ 31-35 cigarettes
- ☐ 36-40 cigarettes
- ☐ More than 40 cigarettes

7. During the last 30 days, how soon after waking up did you usually smoke your first cigarette?

- ☐ NA - did not smoke in the last 30 days
- ☐ Immediately after waking up
- ☐ Within 15 minutes after waking up
- ☐ 15-30 minutes after waking up
- ☐ 31-60 minutes after waking up
- ☐ 61 minutes-2 hours after waking up
- ☐ More than 2 hours after waking up

8. Thinking back, how soon after graduating from recruit training did you smoke a cigarette?

- ☐ NA - did not smoke after recruit training
- ☐ Immediately or the same day
- ☐ 1-7 days after
- ☐ 8-29 days after
- ☐ 1-3 months after
- ☐ 4-6 months after
- ☐ 7-11 months after
- ☐ About 1 year after

9. How often do you smoke in these situations?

- a. Workdays
- b. Days off from work
- c. Alone
- d. With other people
- e. At home
- f. Before work or school
- g. Work or school breaks
- h. After work or school
- i. In clubs or bars
- j. At parties

[illegible]

QUIT ATTEMPTS

10. *Since graduating from recruit training, have you tried to quit smoking?*

- ☐ NA - have not smoked since graduating from recruit training
- ☐ No
- ☐ Yes

11. Since graduating from recruit training, how many times have you tried to quit smoking for one day or longer?

- ☐ NA - have not smoked since graduating from recruit training
- ☐ Did not try to quit since graduating from recruit training
- ☐ Never for a whole day since graduating from recruit training
- ☐ Once
- ☐ Twice
- ☐ Three times
- ☐ Four times
- ☐ Five or more times

12. *Since graduating from recruit training, when was the last time you tried to quit smoking?*

- ☐ NA - have not smoked since graduating from recruit training
- ☐ Did not try to quit since graduating from recruit training
- ☐ Today
- ☐ 1-7 days ago
- ☐ 8-29 days ago
- ☐ 1-3 months ago
- ☐ 4-6 months ago
- ☐ 7-11 months ago
- ☐ About 1 year ago

13. Considering the last time you tried to quit smoking since graduating from recruit training, how long did you stay quit?

- ☐ NA - have not smoked since graduating from recruit training
- ☐ Did not try to quit since graduating from recruit training
- ☐ Less than 24 hours
- ☐ 1 day
- ☐ 2-7 days
- ☐ 8-29 days
- ☐ 1-3 months
- ☐ 4-6 months
- ☐ 7-11 months
- ☐ About 1 year

IF YOU HAVE NOT SMOKED SINCE GRADUATING FROM RECRUIT TRAINING, PLEASE FILL IN THIS BUBBLE ☐ AND SKIP TO QUESTION 15.

14. Below is a list of reasons people give for starting to smoke again. For each reason, fill in the appropriate bubble. No or Yes, to indicate whether it was a reason why you went back to smoking after you graduated from recruit training.

- a. To fit in with the group
- b. To help me relax
- c. To keep my weight down
- d. To show that I'm cool
- e. To show that I'm tough
- f. To look and feel like an adult
- g. To help me when I'm bored
- h. To help me concentrate
- i. To satisfy a craving
- j. To help me handle stress
- k. To help me meet people
- l. To take more work breaks
- m. To take a dare
- n. For the taste
- o. For the enjoyment of it
- p. Because most of my friends smoke
- q. Because I enjoy smoking when drinking

[illegible]

INTENTIONS

15. Which one of the following describes your intentions to quit smoking?

- ☐ NA - have not smoked since graduating from recruit training
- ☐ NA - I quit smoking after leaving recruit training
- ☐ I intend to quit in the next 30 days
- ☐ I intend to quit in the next 2-6 months
- ☐ I do not intend to quit smoking anytime soon

16. If you've quit smoking or intend to quit in the near future, how confident are you that you can go without smoking for 1 year?

- ☐ NA - do not intend to quit
- ☐ Not at all confident
- ☐ Somewhat confident
- ☐ Confident
- ☐ Very confident

17. A year from now, do you see yourself as someone who smokes?

- ☐ Definitely No
☐ Probably No
☐ Probably Yes
☐ Definitely Yes

18. How many of the people you know smoke?

- a. Family members
- b. Friends back home
- c. Friends in the Navy
- d. Supervisors/instructors
- e. Coworkers/shipmates

| None | Some | Most |
|-----------------------|-----------------------|-----------------------|
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

19. Does your spouse/significant other smoke?

- ☐ NA
- ☐ No
- ☐ Yes

COMMAND SMOKING POLICY

20. Do you know what the specific rules are for smoking at your current command?

- ☐ No
- ☐ Yes

21. How do you think the smoking policy at your current command has influenced your smoking?

- ☐ Has not influenced me one way or another
- ☐ Has made me want to smoke even more
- ☐ Has made me want to stay off cigarettes

22. How often are the smoking rules enforced at your current command?

- ☐ Never
- ☐ Rarely
- ☐ Sometimes
- ☐ Usually
- ☐ Always

OTHER

23. Did you use any other tobacco products in the last 30 days?

- a. Pipes
- b. Cigars
- c. Chewing tobacco
- d. Snuff

| No | Yes |
|-----------------------|-----------------------|
| <input type="radio"/> | <input type="radio"/> |
| <input type="radio"/> | <input type="radio"/> |
| <input type="radio"/> | <input type="radio"/> |
| <input type="radio"/> | <input type="radio"/> |

24. Since graduating from recruit training, have you...

- a. seen quit-smoking materials at your command?
- b. received quit-smoking materials in the mail?
- c. talked to someone at a smokers' helpline?

| No | Yes |
|-----------------------|-----------------------|
| <input type="radio"/> | <input type="radio"/> |
| <input type="radio"/> | <input type="radio"/> |
| <input type="radio"/> | <input type="radio"/> |

25. To help us keep in contact with you, please provide the names and locations of your current and next duty stations/commands:

Name of Current Command

City

State

Name of Next Command

City

State

THANK YOU FOR PARTICIPATING IN THIS SURVEY!

\$ Please mail the survey right away in the postage-paid envelope for a chance to win \$100! \$



Appendix I

12-Month Survey

As you may recall, you and several hundred other new members of the U.S. Navy were selected to participate in an ongoing study of tobacco use conducted by San Diego State University, Naval Health Research Center, and the University of California, San Diego. Your participation is very important because the information you provide will help guide future smoking programs for Navy personnel.

*If you do NOT want your name published if you win, please fill in this bubble. ☐

Please answer all the questions honestly and to the best of your ability. Your responses are for research use only and will be kept confidential. Data will be reported so that no individual participant can be identified. If you have any questions about this survey, please contact Dr. Terry L. Conway, San Diego State University, Graduate School of Public Health, 9245 Sky Park Court, Suite 120, San Diego, CA 92123/Phone: (619) 594-8044.

Privacy Act Statement

(1) Authority: Authority to request information is granted under Title 5 USC 301, Department of the Navy Regulations, and Executive Order 9396. License to administer this survey is granted under OPNAV Report Control Symbol 6100-11 which expires 30 June 1998. Personal identifiers will be used to conduct follow-on research. In addition, standard Navy personnel records may be accessed. (2) Purpose: The purpose of this survey is to collect data about tobacco use among new Navy members. (3) Routine Use(s): Information provided in this survey will be analyzed by San Diego State University. The data files will be maintained by San Diego State University and the Navy Personnel Survey System at the Navy Personnel Research and Development Center, where they will be used for determining changing trends in the Navy. (4) Anonymity: All responses will be held in confidence by San Diego State University. Information you provide will be considered only when statistically summarized with the responses of others and will not be attributable to any single individual. (5) Participation: Completion of this survey is entirely voluntary. Failure to respond to any of the questions will NOT result in any penalties except lack of representation of your views in the final results and outcomes.

- * **USE NO. 2 PENCIL ONLY.**
- * **Do NOT use ink, ballpoint, or felt tip pens.**
- * **Erase cleanly and completely any changes you make.**
- * **Make black marks that fill the circle.**
- * **Do NOT make any stray marks on the form.**

* Write the numbers in the boxes at the top of the block.
* Fill in the corresponding circles below.

Please answer ALL questions. Mark NA if not applicable to you. Provide only one answer for each question.

PLEASE DO NOT WRITE IN THIS AREA

PLEASE DO NOT WRITE IN THIS AREA

19836

ABOUT YOU . . .

Name: _____

Today's date:

| DATE | | | | | |
|------|---|-----|---|-----|---|
| MO. | | DAY | | YR. | |
| 0 | 0 | 0 | 0 | 0 | 0 |
| 1 | 1 | 1 | 1 | 1 | 1 |
| | 2 | 2 | 2 | 2 | 2 |
| | 3 | 3 | 3 | 3 | 3 |
| | 4 | | 4 | 4 | 4 |
| | 5 | | 5 | 5 | 5 |
| | 6 | | 6 | 6 | 6 |
| | 7 | | 7 | 7 | 7 |
| | 8 | | 8 | 8 | 8 |
| | 9 | | 9 | 9 | 9 |

SMOKING HISTORY

1. Have you smoked 100 cigarettes (5 packs) in your entire life?
☐ No
☐ Yes
2. Do you currently smoke?
☐ No
☐ Yes
3. Do you smoke cigarettes every day or some days?
☐ NA - do not smoke
☐ Every day
☐ Some days
4. How would you currently describe yourself?
☐ Experimented with smoking
☐ Occasional smoker
☐ Daily smoker
☐ Former smoker
5. When was the last time you smoked a cigarette?
☐ Today
☐ 1-7 days ago
☐ 8-29 days ago
☐ 1-3 months ago
☐ 4-6 months ago
☐ 7-11 months ago
☐ 1-4 years ago
☐ 5 or more years ago
6. During the last 30 days, how many cigarettes did you smoke on a typical day when you smoked cigarettes?
☐ NA - did not smoke any cigarettes in the last 30 days
☐ Less than 1 cigarette, on average
☐ 1-5 cigarettes
☐ 6-10 cigarettes
☐ 11-15 cigarettes
☐ 16-20 cigarettes
☐ 21-25 cigarettes
☐ 26-30 cigarettes
☐ 31-35 cigarettes
☐ 36-40 cigarettes
☐ More than 40 cigarettes
7. During the last 30 days, how soon after waking up did you usually smoke your first cigarette?
☐ NA - did not smoke in the last 30 days
☐ Immediately after waking up
☐ Within 15 minutes after waking up
☐ 15-30 minutes after waking up
☐ 31-60 minutes after waking up
☐ 61 minutes-2 hours after waking up
☐ More than 2 hours after waking up
8. Thinking back, how soon after graduating from recruit training did you smoke a cigarette?
☐ NA - did not smoke after recruit training
☐ Immediately or the same day
☐ 1-7 days after
☐ 8-29 days after
☐ 1-3 months after
☐ 4-6 months after
☐ 7-11 months after
☐ About 1 year after

9. How often do you smoke in these situations?

- a. Workdays
- b. Days off from work
- c. Alone
- d. With other people
- e. At home
- f. Before work or school
- g. Work or school breaks
- h. After work or school
- i. In clubs or bars
- j. At parties

[illegible]

QUIT ATTEMPTS

10. *Since graduating from recruit training, have you tried to quit smoking?*

- ☐ NA - have not smoked since graduating from recruit training
- ☐ No
- ☐ Yes

11. *Since graduating from recruit training, how many times have you tried to quit smoking for one day or longer?*

- ☐ NA - have not smoked since graduating from recruit training
- ☐ Did not try to quit since graduating from recruit training
- ☐ Never for a whole day since graduating from recruit training
- ☐ Once
- ☐ Twice
- ☐ Three times
- ☐ Four times
- ☐ Five or more times

- 12. Since graduating from recruit training, when was the last time you tried to quit smoking?**

- ☐ NA - have not smoked since graduating from recruit training
- ☐ Did not try to quit since graduating from recruit training
- ☐ Today
- ☐ 1-7 days ago
- ☐ 8-29 days ago
- ☐ 1-3 months ago
- ☐ 4-6 months ago
- ☐ 7-11 months ago
- ☐ About 1 year ago

13. Considering the last time you tried to quit smoking *since graduating from recruit training*, how long did you stay quit?

- ☐ NA - have not smoked since graduating from recruit training
- ☐ Did not try to quit since graduating from recruit training
- ☐ Less than 24 hours
- ☐ 1 day
- ☐ 2-7 days
- ☐ 8-29 days
- ☐ 1-3 months
- ☐ 4-6 months
- ☐ 7-11 months
- ☐ About 1 year

IF YOU HAVE NOT SMOKED SINCE GRADUATING FROM RECRUIT TRAINING, PLEASE FILL IN THIS BUBBLE ☐ AND SKIP TO QUESTION 15.

14. Below is a list of reasons people give for starting to smoke again. For each reason, fill in the appropriate bubble. No or Yes, to indicate whether it was a reason why you went back to smoking after you graduated from recruit training.

- a. To fit in with the group
- b. To help me relax
- c. To keep my weight down
- d. To show that I'm cool
- e. To show that I'm tough
- f. To look and feel like an adult
- g. To help me when I'm bored
- h. To help me concentrate
- i. To satisfy a craving
- j. To help me handle stress
- k. To help me meet people
- l. To take more work breaks
- m. To take a dare
- n. For the taste
- o. For the enjoyment of it
- p. Because most of my friends smoke
- q. Because I enjoy smoking when drinking

No

Yes

INTENTIONS

15. Which one of the following describes your intentions to quit smoking?

- ☐ NA - have not smoked since graduating from recruit training
- ☐ NA - I quit smoking after leaving recruit training
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16. If you've quit smoking or intend to quit in the near future, how confident are you that you can go without smoking for 1 year?

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- ☐ Not at all confident
- ☐ Somewhat confident
- ☐ Confident
- ☐ Very confident

- 17. A year from now, do you see yourself as someone who smokes?**

- ☐ Definitely No
☐ Probably No
☐ Probably Yes
☐ Definitely Yes

18. How many of the people you know smoke?

- a. Family members
- b. Friends back home
- c. Friends in the Navy
- d. Supervisors/instructors
- e. Coworkers/shipmates

| None | Some | Most |
|-----------------------|-----------------------|-----------------------|
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

19. Does your spouse/significant other smoke?

- ☐ NA
- ☐ No
- ☐ Yes

COMMAND SMOKING POLICY

20. Do you know what the specific rules are for smoking at your current command?

- ☐ No
- ☐ Yes

21. How do you think the smoking policy at your current command has influenced your smoking?

- ☐ Has not influenced me one way or another
- ☐ Has made me want to smoke even more
- ☐ Has made me want to stay off cigarettes

22. How often are the smoking rules enforced at your current command?

- ☐ Never
- ☐ Rarely
- ☐ Sometimes
- ☐ Usually
- ☐ Always

OTHER

23. Did you use any other tobacco products in the last 30 days?

- a. Pipes
- b. Cigars
- c. Chewing tobacco
- d. Snuff

| No | Yes |
|-----------------------|-----------------------|
| <input type="radio"/> | <input type="radio"/> |
| <input type="radio"/> | <input type="radio"/> |
| <input type="radio"/> | <input type="radio"/> |
| <input type="radio"/> | <input type="radio"/> |

24. *Since graduating from recruit training, have you...*

- a. seen quit-smoking materials at your command?
- b. received quit-smoking materials in the mail?
- c. talked to someone at a smokers' helpline?

| No | Yes |
|-----------------------|-----------------------|
| <input type="radio"/> | <input type="radio"/> |
| <input type="radio"/> | <input type="radio"/> |
| <input type="radio"/> | <input type="radio"/> |
| <input type="radio"/> | <input type="radio"/> |

25. To help us keep in contact with you, please provide the names and locations of your current and next duty stations/commands:

Name of Current Command _____ City _____ State _____

Name of Next Command _____ City _____ State _____

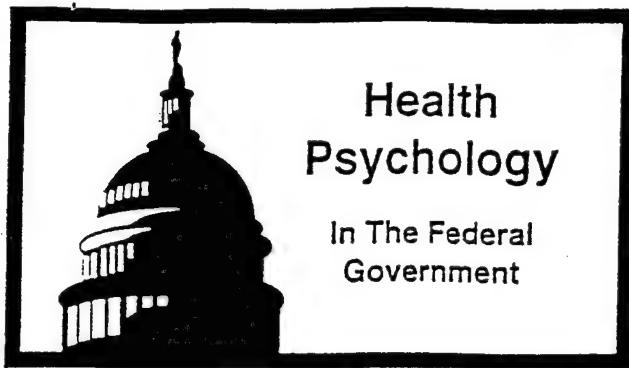
THANK YOU FOR PARTICIPATING IN THIS SURVEY!

\$ Please mail the survey right away in the postage-paid envelope for a chance to win \$100!! \$



Appendix J

Health
Psychologist
Article



Health Psychology

In The Federal
Government

Operation Stay Quit: Smoking Relapse Prevention for Navy Women Recruits

by T. L. Conway¹, S. I. Woodruff¹,
C. C. Edwards¹, J. P. Elder¹, S.-H. Zhu²,
L. K. Hervig³, and S. L. Hurtado³

It is estimated that more than 400,000 Americans die each year as a result of cigarette smoking, accounting for one in every six American deaths (American Cancer Society, 1994). Tobacco use is of particular concern to the Department of Defense (DoD) because the military overall has higher and heavier rates of tobacco use than does the civilian sector and because of the adverse effects of smoking on personnel health and performance (Bray, Marsden & Petersen, 1991; Conway & Cronan, 1992). Military women also are more likely to smoke and to be heavier smokers than civilian women (Bray, Marsden & Petersen, 1991). As the numbers and roles of women in the military expand, it is of critical importance to reduce their smoking prevalence and the smoking-related adverse effects on physical readiness, personal health, medical care costs, and the health of their children.

The Defense Women's Health Research Program (DWHRP) was created to address health problems faced by servicewomen and implement programs and policies that directly improve their safety, health, and military effectiveness. Facilitating nonsmoking among military women clearly fits within the DWHRP goal, as cigarette use is an important factor that can influence military effectiveness/readiness. For example, smokers tend to exercise less and perform more poorly on military physical fitness tests (Conway & Cronan, 1988 & 1992). This is a particularly important issue as military women prepare to go into job ratings previously unavailable to them, in large part because many of these jobs are very physically demanding.

Comprehensive DoD and service-specific policies have been implemented that address the prevention and reduction of smoking by mandating smoke-free work places and cessation support for military personnel (SECNAV, 1986; DOD, 1994). For example, the U.S. Navy prohibits tobacco use at its recruit training command for the eight-week duration of basic training. The impact of this Navy policy has

been quite positive with as much as a 40% self-reported quit rate for men and a 43% quit rate for women measured at graduation from basic training (Hurtado & Conway, 1991 & in press). However, the one-year quit rate indicated substantial relapse, with women showing a greater relapse rate at the one-year follow-up than men (sixty-seven percent relapse for women versus thirty-eight percent relapse for men). The issue of cessation is complicated by the fact that men and women have different cessation experiences. Studies point to gender differences in severity of withdrawal symptoms, self-efficacy for quitting, perceived benefits of quitting, coping strategies, and emotional reactions to smoking relapse (Blake, Klepp & Pechacek, 1989; Grunberg, Winders & Wewers, 1991; O'Connell, 1990). Thus, gender-specific interventions are needed that are effective in reducing tobacco use and maintaining quit status among military women.

"Operation Stay Quit"

To address the problem of smoking among Navy women, DWHRP has funded a 2 1/2 year study designed to test an innovative approach aimed at reducing tobacco use among Navy women recruits. "Operation Stay Quit" will evaluate two non-obtrusive relapse-prevention strategies designed to support the organizationally-enforced quit status of women recruits during the eight weeks of basic training. Recruit Training Command (RTC) at Great Lakes, Illinois is the setting for initial recruitment into the study, as well as entry and graduation assessment of smoking status. All women recruits entering the RTC for 10 consecutive months will be asked to participate in the study. Recruits who describe themselves as smokers on either the entry or graduation surveys will comprise the group to be followed over the next year. Women recruits will be assigned randomly to one of the two intervention groups or to a control group. Assessments of smoking status will be made at 3-, 6-, and 12-months after graduation from basic training.

The two relapse prevention interventions use a cognitive-behavioral approach (Marlatt & Gordon, 1985) which maintains that behavioral changes such as quitting smoking are primarily due to self-regulation (Baumeister, Heatherton & Tice, 1994) and motivation (Leventhal & Cleary, 1980). Both interventions also will address issues specific to women and cessation, based on empirical findings on gender differences in smoking cessation (Gritz, Brooks & Nielsen, 1995). One intervention group will be encouraged to access a 1-800-helpline for support and counseling to remain a nonsmoker or to quit again if they have relapsed into smoking. This is considered an "active" intervention in that it is initiated by the participant. The second intervention group will receive a series of monthly mailings to support and encourage nonsmoking during their first year of naval service. The mail intervention is considered a "passive" intervention in that no action is required by the participant. A third group will be a "standard-treatment" control group that will not receive any intervention during their first year of Naval service.

Telephone helpline intervention. The telephone helpline is an innovative approach to telephone counseling developed and operated by researchers at the University of California, San Diego. Women assigned to the telephone counseling condition will receive information describing the toll-free telephone counseling helpline, and will be encouraged to call the number upon leaving basic training. Incentives (e.g. chances at lottery prizes) will be offered to encourage women to call the helpline. Once the participant makes the initial call, the helpline counselor proceeds with scheduling follow-up calls, thus creating a proactive counseling procedure. This procedure creates a certain level of accountability, as well as fostering social support. The follow-up sessions will be sched-

uled in relation to the participant's probability of relapse, thereby providing assistance to participants when they need it most (Zhu & Pierce, 1995). This proactive counseling protocol with its relapse-sensitive schedule has been shown to as much as double the quitting success of smokers, compared to a self-help approach (Zhu, et al., 1996). The counseling protocol will be adapted to meet the particular needs of women in the Navy.

Mail support intervention. Women assigned to the mail support condition will receive cessation support materials in the mail beginning one month post-graduation. Mailed materials will include educational information along with small incentive items. Educational materials will continue to be mailed on a monthly basis for four months, then will be mailed every third month for one year. Mailed materials will be sensitive to stage-of-change and include quitting strategies relevant for Navy women.

Intervention content. In addition to the cognitive-behavioral and self-motivation elements, the interventions also will address issues known to be especially relevant to women in smoking cessation. Fear of weight gain is a well-documented reason cited by women as a barrier to quitting smoking or staying quit and is particularly relevant for Navy women who must meet body fat standards. The interventions will emphasize that weight gain is not a certainty, or is often temporary while the body adjusts to a post-smoking metabolic rate (Chen, Horne & Dosman, 1993). Telephone and mailed-material content will provide women with skills to cope with the possibilities of weight gain by (a) identifying low-fat, satisfying snacks to ease cravings and control weight; (b) pointing out the dual benefits of exercise for control of cessation-related weight gain and physical readiness test performance, and (c) encouraging acceptance of small, temporary fluctuations in weight.

Several studies have indicated that women respond positively to informal social support when trying to quit or maintain their quit status (Lacey, Manfredi & Balch, 1993; Sorensen & Pechacek, 1987; Coppotelli & Orleans, 1985). Both phone and mail channels of intervention will foster informal social support through two mechanisms: (a) providing support by telephone helpline counselors or continual personalized mailed materials, and (b) encouraging participants to identify and effectively use a quit/stay-quit buddy at their current command. Women differ from men in their concern about the health risks of smoking and the perceived benefits of quitting (Lacey, Manfredi & Balch, 1993; Schuman, 1977; Sorensen & Pechacek, 1987). The immediate and longer-term benefits of cessation, including economic ones and those related to physical fitness requirements of the Navy, will be emphasized.

Studies consistently report that women are tentative about their ability to quit smoking or to stay quit. Women may attribute successful cessation to luck instead of to personal strengths, skills, and coping strategies, while relapse may be attributed to personal failure (Blake, Klepp, & Pechacek, 1989). Many women believe that "falling off the wagon" indicates permanent failure, and this belief leads to doubts about one's ability to be a non-smoker. Enhancement of perceptions of cessation self-efficacy and expectations for success will be an aim of the interventions. Recruits will be exposed to the idea that quitting is a process in which an indi-

(Continued on page 24—See Federal Government)

Postdoctoral Training in Clinical Health Psychology in the United States Air Force

by C. Keith Haddock, Anderson B. Rowan, G.
Wayne Talcott, and Risa J. Stein

Clinical Health Psychology within the United States Air Force (USAF) is a valued service and, consequently, has enjoyed sustained growth over the past decade. A renowned health psychologist, Joseph Matarazzo, serves as the Civilian Consultant to the Air Force Surgeon General. Each of the USAF's three APA accredited internship sites has a required health psychology rotation, staffed by at least one post-doctorally trained health psychologist. In addition, the USAF sponsors a one-year postdoctoral fellowship in Clinical Health Psychology at Wilford Hall Medical Center (WHMC) in San Antonio, Texas.

WHMC is a 1000-bed major medical complex which, in addition to inpatient and outpatient care, provides teaching programs for psychologists and most medical specialties. The postdoctoral fellowship in Clinical Health Psychology is housed in the Behavioral Health Psychology (BHP) Service at WHMC. Because WHMC is the final place of referral from Air Force hospitals throughout the world, BHP fellows obtain experience in the evaluation and treatment of a breadth of health problems not usually available in one locale. The BHP staff consists of three postdoctorally trained health psychologists (two military, one civilian), two postdoctoral fellows, and three to four predoctoral interns. In addition, BHP enjoys an excellent support staff.

BHP fellows receive substantive training in Clinical Health Psychology through supervision, workshops, a postdoc reading seminar, visiting professors, and professional conference attendance. Fellows receive both individual and group supervision, and also observe the staff supervision of predoctoral interns. BHP clinical workshops are typically three to four hours in length, and cover topics such as the treatment of benign headaches, biofeedback training, and treatment of sleep disorders. In addition to the workshops offered by BHP, fellows attend seminars provided by various medical services. For example, the Department of Pulmonary and Critical Care Medicine offers a series of lectures on the assessment and treatment of sleep disorders. The clinical workshops are supplemented by a weekly postdoc reading seminar which covers influential books and journal articles on health psychology and related topics.

Fellows are not only trained by the BHP staff, but by several leading health psychologists throughout the country. Each year approximately 15 eminent psychologists are invited to spend three to five days interacting with the faculty, fellows, and interns at WHMC in the form of workshops, formal presentations, and individual consultation. Typically, 3 to 4 of these individuals are

(Continued on page 25—See Air Force)

Federal Government

(continued from page 5)

vidual may have to "cycle" through several times before becoming abstinent.

Measures of effectiveness. The primary measure for evaluating intervention effects will be changes in self-reported smoking status. Items measuring duration of abstinence also will be important for examining patterns of relapse. Stage-of-change for cessation will be included as a sensitive variable that describes an individual's process of quitting and relapse. Demographic/background characteristics and Navy environment factors (e.g., type and size of duty station; rating; deployment status) will also be measured to investigate predictors of quitting and relapse.

Summary

The DoD has recently become the largest employer in the U.S. to mandate a total workplace ban in which smoking is prohibited in virtually all indoor work spaces (DoD, 1994). This ban, although highly laudable from a health and readiness perspective, places additional burdens on military personnel who continue to smoke. Consequently, it is to the military's advantage to support efforts that maintain the cessation state achieved by all military recruit smokers going through basic training. Operation Stay Quit expects to determine the relative effectiveness of the 1-800 helpline and the mail support intervention compared to the Navy's "standard treatment" in supporting smoking cessation for female recruits. Estimating that well over 30% of incoming military recruits are smokers, it is clear that the military's smoking preva-

lence could be lowered dramatically within a decade if a cost-effective smoking relapse prevention program was in place to support the quit status achieved by recruit smokers during basic training. ♦

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WANTED Letters to the editor!

Dear Editor,

Although I read each issue of *The Health Psychologist*, I never see any letters to the editor from any of our members. Is this because you never get any, or because you refuse to print them? I dare you to print this one!

Sincerely,
Curious Member

Dear Curious Member,

I would be thrilled to print more letters such as yours! Maybe this will stimulate others to follow in your footsteps.

Yours truly,
The Editor

Forward your letter to:
Ken Wallston
Editor, *The Health Psychologist*
Vanderbilt University School of Nursing
429 Godchaux Hall
Nashville, Tennessee 37240
Fax: (615) 343-7711



Appendix K

MEDNEWS
Press Release

[Operation Stay Quit News Release]

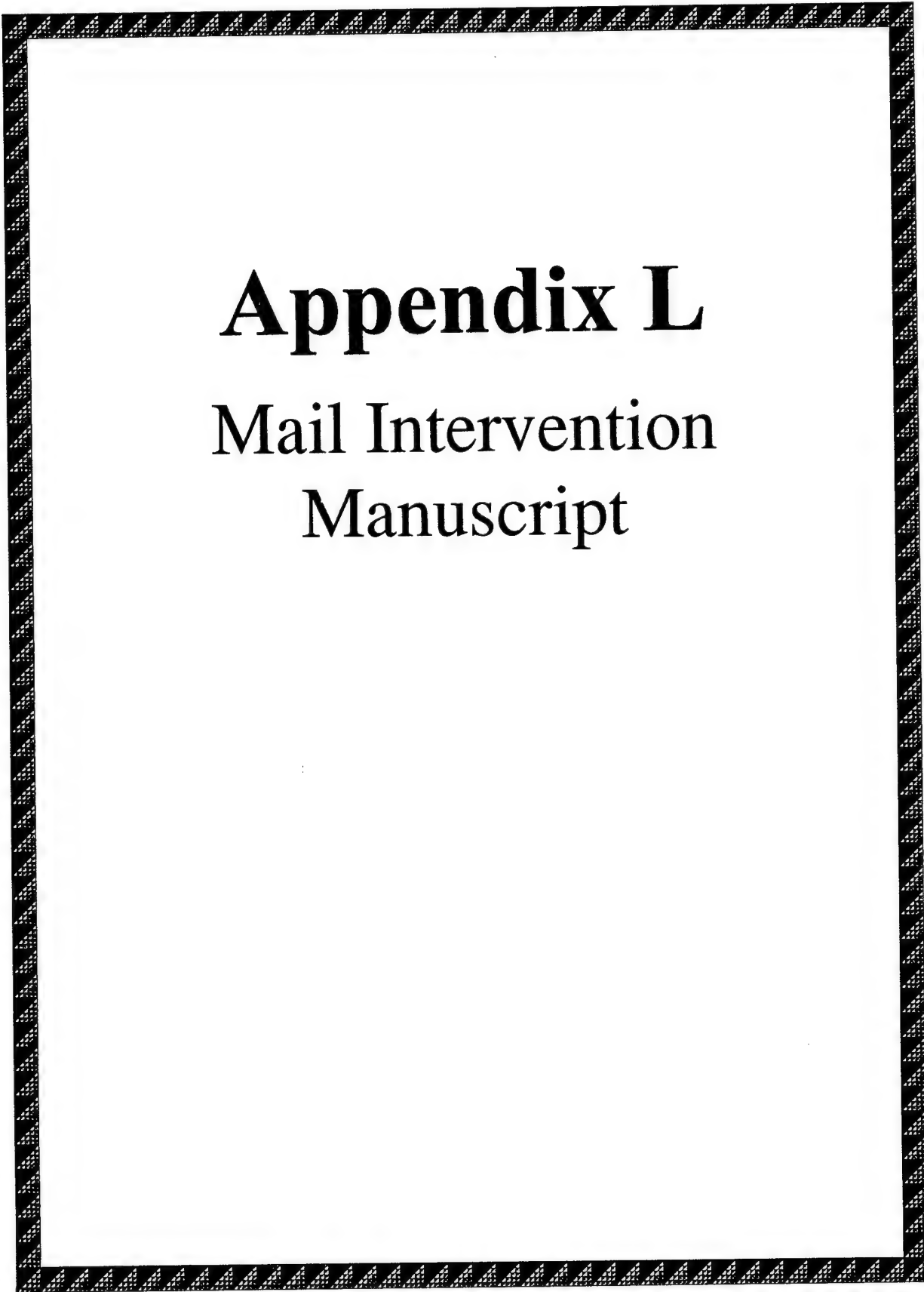
New Research to Help Navy Women Quit Smoking

A study underway with Navy women graduation from recruit training may provide help for these young women to quit the smoking habit and, more importantly, say quit. A collaborative study by San Diego State University, University of California, San Diego and the Naval Health Research Center, San Diego, Operation Stay Quit (OSQ) is testing two innovative approaches to reduce tobacco use among these new Navy women. This 2 ½ year study is funded by the Defense Women's Health Research Program as part of efforts to address health issues specific to women in military service.

All female recruits attending the Recruit Training Command at Great Lakes, IL, are asked to participate in the study. Participants are surveyed at the beginning and end of recruit training, as well as 3-, 6- and 12-months post-recruit training. Those who women identify themselves as smokers are assigned to one of three groups: telephone-based counseling, mailed materials or control (no intervention). Women in the telephone counseling group have the opportunity to call a toll-free phone number to receive help to develop a personalized plan of attack for giving up cigarette smoking for good. A smoking cessation counselor then will stay in contact with the Navy women for a series of support calls. In the mailed materials group, participants receive educational and motivational information packets for a 10-month period. According to Dr. Terry Conway, Principal Investigator, "The majority of recruits start smoking again as soon as they graduate from recruit training. It's critical to provide these women with support for staying quit, or to help them quit again after a few months."

Designed to address the everyday situations Navy women face, Operation Stay Quit interventions focus on issues particularly relevant to women smokers, such as fear of weight gain after smoking cessation, the need for social support, and the inevitable stress associated with breaking an addictive habit. "OSQ results will help the Navy to identify successful strategies for helping women permanently kick the smoking habit," said Dr. Conway.

For more information, contact Dr. Terry Conway, Principal Investigator, SDSU, 9245 Sky Park Ct., Ste. 120, San Diego, CA 92123; E-mail address, tconway@mail.sdsu.edu; telephone number, (619) 594-8044.



Appendix L

Mail Intervention Manuscript

**Operation Stay Quit:
A Mail Intervention to Prevent Smoking Relapse Among
U.S. Navy Women**

Christine C. Edwards, M.P.H.*

Susan I. Woodruff, M.A.*

Terry L. Conway, Ph.D.*

***Operation Stay Quit, Graduate School of Public Health, San Diego State University,
San Diego, CA.**

Operation Stay Quit:
A Mail Intervention to Prevent Smoking Relapse Among U.S. Navy Women

ORGANIZATION SETTING

Studies have indicated that U.S. Navy women are more likely to smoke and to smoke more than their civilian counterparts (1,2). Smoking rates have been reported as high as 35-50% for women in the Navy (3). Therefore, reducing tobacco use rates is of particular concern to the Department of the Navy. To address this issue, the Defense Women's Health Research Program has funded Operation Stay Quit (OSQ) to investigate methods for reducing smoking prevalence among Navy women.

Roughly 22% of enlisted U.S. Navy personnel are women. Initially, all women enter the Recruit Training Command (RTC) at Great Lakes, Illinois undergo eight weeks of recruit training. Although there is some seasonal variation in the number of women entering the Navy, an average of 600 women join each month. Over one-third of these women are smokers.

PROBLEM TO BE SOLVED

As the numbers and roles of women in the military expand, it is of critical importance to reduce their smoking prevalence and the smoking-related adverse effects on physical readiness, health, medical care costs and the health of their children. The initial period of recruit training is interesting because all smokers are subject to an organizationally-mandated period of cessation: smoking is strictly prohibited 24 hours a day for the eight weeks of recruit training. Thus, all smokers are forced to quit "cold

turkey” and remain quit for almost two months. Research indicates that the 2-3 month period after quitting is the most likely time for relapse to occur (4). It is tempting to believe that these women recruits have successfully passed a critical period and, therefore, are less likely to relapse upon leaving RTC. However, an overwhelming majority of recruits immediately return to smoking upon graduating from recruit training. Research has shown as much as a 67% post-RTC relapse rate among women smokers in the Navy (5). Determining strategies that could help maintain the cessation achieved by all women smokers during recruit training would dramatically lower the Navy’s smoking prevalence within a decade.

DESCRIPTION OF INNOVATION

Most smokers experience difficulty with quitting and relapse at least once during the quitting process. Quitting is further complicated by the fact that there are definite differences between men and women in their reasons for and successes with quitting (6-8). To address these gender differences, OSQ designed a relapse prevention program specifically for women smokers. Two different strategies are being tested in the broader study: 1) toll-free telephone helpline, and 2) mailed motivational materials. Because the majority of smokers want to quit without intensive intervention (9), the mailed materials intervention has the potential for providing motivational and behavioral cues at critical relapse points without the need for face-to-face contact. Description of the mailed materials intervention is the focus of this article.

The mailed materials intervention focuses on relapse issues that research has shown to be relevant to women, and particularly relevant to Navy women, such as fear of post-quitting weight gain, coping with stress, social support and the perceived benefits of

quitting. It provides relapse prevention support over a 12-month period, with more frequent contact during the first 4 months when relapse is most likely to occur. Participants' smoking status is assessed through a self-report, written survey at 3-, 6- and 12-months post-RTC graduation.

Each of the six intervention modules consists of a colorful, one-page motivational flyer and a "behavioral cue" item. The modules and behavioral cue items are outlined below:

Module 1: "To Smoke or Not To Smoke?"

Women are more likely than men to attribute relapse to stress (8). Module 1 addresses stress management techniques and skills for identifying potentially difficult situations that could trigger relapse. A foam "stress grip" with the OSQ logo accompanies the written material with a "tip" to squeeze the stress grip to help delay any urges to smoke.

Module 2: "Ship Shape"

Fear of post-cessation weight gain is a well-documented reason women give for continuing to smoke or relapsing (10). Weight gain is particularly relevant to Navy women who must meet weight/body fat and fitness standards. Module 2 addresses the fear of weight gain and provides hints on staying fit. Small boxes of gum with the OSQ logo accompany the written material with a "tip" to chew gum as a low-fat, low-calorie way to satisfy cravings.

Module 3: "What's In It For You? "

Women differ from men in their perceptions of the benefits of quitting smoking and staying quit (11-13). As women in the Navy often do not have much disposable

income, the economic benefits of quitting are relevant. Module 3 emphasizes the economic benefits of not smoking. A calculator with the OSQ logo accompanies the written material with a "tip" to calculate the extra money they will have to spend when they do not buy cigarettes.

Module 4: "It Takes Time..."

Women tend to be more tentative than men about their ability to remain smoke-free and believe relapsing is an indication of failure (8). Module 4 emphasizes the process of quitting and the idea that becoming a nonsmoker takes time. A ballpoint pen with the OSQ logo accompanies the written material with a "tip" to write down alternative activities to smoking.

Module 5: "Need Help?"

Studies have shown that women respond positively to the use of informal social support when trying to quit or remain quit (13-15). Module 5 emphasizes the importance of social support and identifies strategies for teaching others how to be supportive during the quitting process. A credit card size address book with the OSQ logo accompanies the written material with a "tip" to keep a friend's phone number handy.

Module 6a: "Congratulations!"

For the final module, recent self-report surveys are used to identify the participant's current smoking status. For the former smoker, module 6 emphasizes that she is now a nonsmoker and reminds her that she still may face difficult moments. A pocket mirror with the OSQ logo accompanies the written material with a "tip" to look in the mirror and look at the nonsmoker.

Module 6b: "Still Smoking?"

For the continuing smoker, module 6b identifies rationalizations used to justify smoking and de-bunks those ideas. The emphasis of this final module is that millions of people have successfully quit smoking. A pocket mirror with the OSQ logo accompanies the written material with a "tip" to look in the mirror and picture a nonsmoker.

PROGRAM IMPACT

Operation Stay Quit is in the initial stages of program implementation. To date, approximately 200 women have received intervention modules 1,2 or 3. By the end of the study, approximately 1,000 women will receive the mailed materials intervention. The intervention addresses several critical areas in which tobacco use negatively impacts Navy women. The most immediate detrimental impact is on personal physical health and its direct negative relation to physical fitness and performance on mandatory physical readiness tests. In the longer term, successful smoking relapse prevention will have a positive impact both on the health of those women who become pregnant and, ultimately, on the health of their children.

REFLECTION

Many smoking cessation programs have relied on mailed, self-help materials as an intervention tool. There are key differences between the Operation Stay Quit intervention and previous mailed interventions. First, this intervention focuses on relapse issues specific to women. Although here it is aimed at Navy women, it is clearly generalizable to the civilian female population. Further, with very little work, individual modules could be modified to meet the needs of more specific target populations (e.g. addressing economic costs specific to teenage girls). Second, the accompanying inexpensive behavioral cue

items are designed to remind the participant of strategies that can be used to assist with relapse prevention, thereby providing physical reminders of a commitment to staying quit from cigarettes. Finally, at a cost of approximately \$8.00 per participant, the mailed materials intervention is a low-cost, non-intrusive relapse prevention program with broad impact potential for lowering smoking rates and reducing smoking-related health consequences.

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Appendix M

APHA Abstract

Draft

Call for Abstracts

APHA 124th Annual Meeting New York, NY - Nov17-Nov21, 1996

(Author making presentation)

Name and title Susan I. Woodruff, M.A.

Address 9245 Sky Park Ct., Ste. 120

City San Diego State CA Zip 92123

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Presenter's E-mail swoodruf@mail.sdsu.edu

Persons wishing to contribute presentations or papers to be considered for the APHA Annual Meeting must submit an abstract of the work on the form provided below. The abstract form must be accompanied by an Author/Co-Author ID Form. The 2 forms should be mailed to the designated Section, SPIG, or Caucus Representative and RECEIVED no later than February 09, 1996. Do not submit the same abstract to more than one Section or APHA component

TO BE COMPLETED BY PROGRAM CHAIRPERSON

SESSION:

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Time: From _____ To _____

ABSTRACT: ☐ Contributed
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We are unable to print the entire Call for Abstracts in this publication due to its growing length. However, we will send all members the complete Call for Abstracts for the Sections, SPIGs, and Caucuses. Please look for the mailing and follow the instructions for the specific section to which you plan to submit your abstract. We shall also have the information on our Fax-on-Demand starting on December 4, 1995; call (202) 274-4577

TYPE ABSTRACT TITLE IN UPPER LETTERS. Type authors' and co-authors' names using upper and lower case letters and underline, with presenter's name listed first, who will be the only one to receive the detailed program participant mailing. Type abstract text flush left, single-spaced, within parameters of the box, using standard size type. Abstracts should be of camera-ready quality, suitable for 50% reduction.

Section, SPIG, Caucus or APHA Group Abstract submitted to: Alcohol, Tobacco & Other Drugs

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If your abstract is selected for presentation, do you prefer to present it as a: ☒ poster; ☐ verbal presentation; ☐ roundtable; ☐ any of these

What Audio Visual equipment will you need for your presentation: ☐ Slide projector or ☐ Overhead projector ☐ Other

Are self-addressed stamped envelope and postcard enclosed?: ☒ Yes ☐ No

Are the appropriate number of original abstracts, blind review copies and author ID forms enclosed (see section requirements)? ☒ Yes ☐ No

Effect of an Eight-week Involuntary Smoking Ban on Women's Perceptions of Being a Smoker

Susan I. Woodruff, M.A., Terry L. Conway, Ph.D., Christine C. Edwards, M.P.H., John P. Elder, Ph.D., Shu-Hong Zhu, Ph.D., Linda K. Hervig, M.S., Suzanne L. Hurtado, M.P.H.

The effects of organizational smoking bans on individual smoking behavior have been examined previously, although benefits resulting from such bans are unclear. The present study examines the effect of a unique organizational smoking ban--8 weeks of enforced, involuntary cessation experienced by female U.S. Navy recruits during "boot camp." The Navy's complete ban on smoking is enforced 24 hours a day for the 8-week duration of boot camp. Approximately 2,000 young women identifying themselves as smokers at the beginning of boot camp will be assessed at the end of boot camp about their perceptions of being a smoker. Changes in perceptions among these women resulting from the 8-week ban will be presented, along with implications for the Navy in supporting this cessation once the women leave boot camp.